

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 1 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
pg		ISO/IEC JTC1/SC29 WG11 Web Page
		Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11/N1578, MPEG97/ February 1997/Sevilla, MPEG-7: Context and Objectives (v.2)
		Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11/N1579, MPEG97, February 1997/Seville, MPEG-7 Seminar Announcement
		Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11/N, MPEG 96/July 1996 Short MPEG-4 description
		TOURADJ EBRAHIMI, "MPEG-4 Video Verification Model: A video encoding/decoding algorithm based on content representation"
		YUCEL ALTUNBASAK, "Content-Based Video Representation and Motion Tracking for Visual Communication and Multimedia", altunbas.html at www.seas.rochester.edu
		Coding of Moving Pictures and Audio, ISO/JTC1/SC29/WG11/N, MPEG 97/ February 1997, MPEG-7 FAQs
		MPEG Video Group Homepage
		Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11 N1678, MPEG97/ Bristol-April 1997, MPEG-7: Context and Objectives (v.3)
		SWETS, DANIEL L. and WENG, JOHN J., "Efficient Content-Based Image Retrieval Using Automatic Feature Selection"
		CARLSON, BRIAN, ""MPEG-7" For Multimedia Searching: Room for Video Content Recognition?"
		Press Release from Internet dated March 20, 1997 re: Concurrent Computer Corp.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 2 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

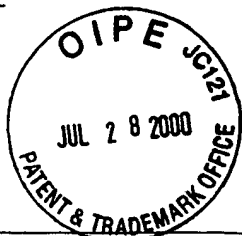
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
PJ		Press Release from Internet dated April 7, 1997, "New Alliances with The Duck Corp., Telos Systems and Voxware Inc.: Microsoft Delivers First MPEG-4 Codec"
		Internet Article "Networked Image Databases", Net_image_data-0.3.html at dcas.ucdavis.edu
		Internet Article "Scenic Video/Image Retrieval-A Demo, Keyframe Search-A Demo"
		Internet Article "Automatic Content-Based Retrieval of Broadcast News"
		CHANG, YUH-LIN, et al., "Integrated Image and Speech Analysis for Content-Based Video Indexing"
		Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11 N1678, MPEG97/Bristol-April 1997, MPEG-7: Context and Objectives (v.3)
		JOHNSON, COLIN, "Surfing the Web Gets New Smarts", Electronic Engineering Times January 5, 1998, pages 37 and 42.
		Press Release from Internet dated May 28, 1997, "Charting the course for video on the PC, S3(R) Incorporated"
		Internet Article "Bringing High-Quality Digital Video to the PC"
		Press Release from Internet dated May 28, 1997, "Continuing its leadership in the DVD market, C-Cube Microsystems Inc."
		Press Release from Internet dated May 27, 1997, "C-Cube Microsystems"
		Press Release from Internet dated May 27, 1997, "E4 (Elecede Technologies Inc.) and Chromatic Research Inc.
		Press Release from Internet dated May 16, 1997, "DVD '97"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

RECEIVED

Sheet 3 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Internet Article "The DVD copy protection problem", DVD copy protection problem

Internet Article "Digital Video Disc", C-Cube Microsystems-Technology

Internet Article "A Day at the DVD Forum: Technical Notes."

DODDS, PHILIP V.W., "DVD's Royalty - The Reign of Patents", IMA Newsletter Article, IMA Newsletter Article: DVD's Royalty-The Rei...

PARKER, DANA J., "Standard Deviations", CD-ROM Professional, December 1996, Standard Deviations

YOUNG, JEFFREY, "Pirate's Best Friend", Forbes (3/10/97) C-Cube's Hot Chip, Forbes (03/10/97) C-Cube's hot chip

Internet Article "Digital Video Disc (DVD) Copy Protection Process", DVD Copy Protection Process

Press Release from Internet dated May 27, 1997 "C-Cube Integrates Copy Protection and Decryption Into Its Single-Chip DVD Decoder", Yahoo Finance

YOSHIDA, JUNKO, "As factions mull watermark proposal...Copy-protect logjam stalls DVD-PC debut", EE Times, May 26, 1997, Issue: 955, Techsearch Results

"Encryption won't prevent the infringement of DVD disks", EE Times, May 12, 1997, Issue: 953, Techsearch Results

Press Release from Internet dated May 13, 1997 "Encryption Mandates by DVD Consortium Hit Home - and the Home PC, in EMedia Professional's June 1997 Special Feature, Yahoo Finance

Internet Article "EET-i Top of the News Week of 4/22/96", EET-i Week of 04/22/96

Press Release from Internet dated 10/29/96 "Copyright Protection Technical Working

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 4 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Group Announces DVD Encryption Achievement", Copyright Protection Technical Working Group...

PARKER, DANA J., "DVD Copy Protection: An Agreement At Last?"

Internet Article "IBM helps make Digital Versatile Disk (DVD) a reality"

ELRICH, DAVID J., "Maverick move rocks DVD Consortium", DVD: Sony, Philips drop a bomb

YOSHIDA, JUNKO, "FireWire plan protects video transfer - Intel bids to break copyright stalemate, EETIMES, April 28, 1997, Issue: 951, Techsearch Results

Press Release from Internet dated January 9, 1998, "New Product Connects to VideoConferencing Rooms, PC's and Other TV-Based Video Products"

Press Release from Internet dated January 9, 1998, "New Unit Has Six Auxiliary Inputs To Remotely Monitor Vacation Homes, Offices Or Other Important Areas In Need Of Surveillance"

Press Release from Internet dated January 7, 1998, "Philips Magnavox WebTVr Plus Receiver Integrates TV and World Wide Web Viewing"

Press Release from Internet dated January 8, 1998, Lucent Technologies Equipped TV Video Phone Offers Enhanced Screen Graphics, Software Downloads, Password and Security Features and Video Quality Unmatched"

Press Release from Internet dated January 9, 1998 re: Gemstar International Group Ltd.

Ph.D. Thesis entitled "Ruben's Research"

Index of Thesis by John R. Smith entitled "Integrated Spatial and Feature Image Systems: Retrieval, Analysis and Compression"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 5 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
Aug 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

BLUM, THOM, ET AL., "Audio Analysis for Content-Based Retrieval"

BROWN, MARTIN G., ET AL., "Automatic Content-Based Retrieval of Broadcast News"

AGOSTI, BLEEKER, "Content-Based Retrieval of Multimedia"

CRESTANI, "Adaptive Information Retrieval"

WILKINS, R.J., ET AL., "The MAVIS project-extending generic links and content based retrieval to non-textual documents in the Microcosm model"

SMITH, JOHN R., ET AL., "VisualSEEK: a Content-Based Image/Video Retrieval System"

SMITH, JOHN R., ET AL., "SaFe: A General Framework for Integrated Spatial and Feature Image Search", IEEE Signal Processing Society 1997 Workshop on Multimedia Signal Processing, June 23-25, 1997, Princeton, NJ

BARNESLEY, MICHAEL F., "Fractal Image Compression", AK Peters, Ltd., Wellesley, MA

Integrated Information Technology Inc., Data Sheets

"IBM Unleashes QBIC Image-Content Search", Reprint appeared in The Seybold Report on Desktop Publishing (ISSN 0889-9762), Volume 9, Number 1, September 12, 1994.

REINHARDT, ANDY, ET AL., "Microsoft Licenses Fractal Technology", BYTE, page 26, May 1992.

BARNESLEY, MICHAEL, ET AL., "A Better Way to Compress Images", BYTE, January 1988.

Iterated Systems, Inc. Corporate Profile

DOHERTY, RICHARD, "Fractals Yield High Compression", Electronic Engineering Times, page 39, September 30, 1991.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 6 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

ANSON, LOUISA, ET AL., "Graphics Compression Technology - A New Method for Image Reproduction Using the Fractal Transform Process", SunWorld, pages 43-52, October 1991.

DOHERTY, RICHARD, "MPEG Group Reveals Audiovisual Code Data", Electronic Engineering Times, page 97, December 2, 1991.

YOSHIDA, JUNKO, "EMC² Pushes Video Rental by Satellite", Electronic Engineering Times, pages 97-98, December 2, 1991.

COY, PETER, "First, Take a Picture. Now, Squeeeze It", Business Week, page 100A, September 30, 1991.

"Fractal Image Compression - the Future? Start-up #117", Semiconductor Currents, November 1991.

Publication by InSide Gartner Group, pages 5-8, October 9, 1991.

Technical Overview by Excalibur Technologies

Publication by Superbase Inc.

Publication by IBM Ultimedia Manager.

RAMO, JOSHUA COOPER, "Winner Take All", Time, September 16, 1996

BAINES, SUNNY, "Optical Correlator Expands Into 3-D Scenes", Electronic Engineering Times, page 57, September 7, 1998.

YOSHIDA, JUNKO, "Digital World Divided on Watermark Specs", EE Times, pages 1 and 142, July 27, 1998.

WINGFIELD, NICK, "An Internet Fledgling Pushes for Control of Key Technology", The Wall Street Journal, page B9, Wednesday, October 8, 1997.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 1 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

GUGLIELMO, CONNIE, "Magnifi to Ease Audio, Video Content Searches", Inter@ctive Week, May 26, 1997.

LYONS, DANIEL, "The Buzz About Firefly", The New York Times Magazine, pages 37-40, June 29, 1997.

YOSHIDA, JUNKO, "Intel Bids to Break Copyright Stalemate", EE Times, pages 1 and 16, April 28, 1997.

JOHNSON, R. COLIN, "Kit Employs Fuzzy Logic for Smart Web Searches",

YOSHIDA, JUNKO, "Copy-protect Logjam Stalls DVD-PC Debut", EE Times, pages 1 and 4, May 26, 1997.

Press Release from Internet dated December 23, 1996 "StarSight Telecast, Inc."

Press Release from Internet dated November 20, 1996 "Excalibur Technologies Corp."

Press Release from Internet dated November 12, 1996 "Excalibur Technologies Corp."

Press Release from Internet dated November 4, 1996 "Excalibur Technologies Corp."

Press Release from Internet dated November 20, 1996 "Excalibur Technologies Corp."

Press Release from Internet dated November 12, 1996 "Keyware Technologies Inc."

Press Release from Internet dated November 12, 1996 "Excalibur Technologies Corp."

Press Release from Internet dated November 5, 1996 "Oracle Corp. and Virage, Inc."

Press Release from Internet dated May 19, 1997 "Sumner Redstone"

Press Release from Internet dated May 8, 1997 "Gemstar International Group Limited"

PTO/SB/08
AUG 1 2000
RECEIVED
Group 2700

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 8 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

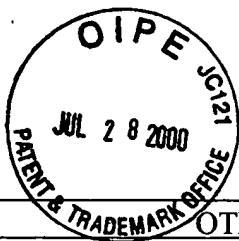
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
RJ		Press Release from Internet dated May 5, 1997 "Gemstar International Group Ltd."
		Press Release from Internet dated April 30, 1997 "Gemstar International Group Ltd."
		Press Release from Internet dated May 21, 1997 "Peter H. Bachmann"
		Press Release from Internet dated May 7, 1997 "Viacom Inc."
		Press Release from Internet dated May 20, 1997 "Excalibur Technologies Corp."
		Press Release from Internet dated May 19, 1997 "IMSI"
		Press Release from Internet dated May 27, 1997 "Netscape Communications Corporation"
		HARA, YOSHIKO, "Input device 'reads' gestures", EE Times, page 22, November 25, 1996.
		"Data Translation/Media 100 to Split Up", Advanced Imaging, pages 8-9, September 1996.
		YOSHIDA, JUNKO, "Digital Encryption Hostilities Renewed", EE Times, pages 1 and 14, Monday, December 7, 1998.
		Press Release from Internet dated February 3, 1998 "NETCOM Launches Cost-Effective ISDN Solutions; New Services Bring NETCOM's High-Speed Network to Small Offices"
		Press Release from Internet dated January 28, 1998 "Diamond Multimedia and Earthlink Begin Dual-Line Modem Trials Utilizing Diamond's Shotgun Technology"
		Press Release from Internet dated January 27, 1998 "e-Net, Inc."
		Press Release from Internet dated January 27, 1998 "VideoServer, Inc."
		Press Release from Internet dated January 9, 1998 "C-Phone Corporation"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 9 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11



RECEIVED
AIC
1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated January 8, 1998 "CES Booth 10827"

Press Release from Internet dated October 15, 1997 "New License Agreements for Web Developers Simplify"

BROWN, CHAPPELL, "Startup Nestor Readies Neural Network-Based Products", EE Times, pages 1 and 10, September 1, 1986.

"Knowledge From The Video Screen", KMWorld, page 10, December 1998.

VONDER HAAR, STEVEN, "Content Drives Targeting", Interactive Week 5(30) 8/14/98 p.8.

GUGLIELMO, CONNIE, "Personify Predicts Buying Patterns", Interactive Week 5(25) 6/29/98. p.50.

CARLSON, BRIAN, "The Consumer Desktop Looks at Vision: R&D Directions at Microsoft and MIT", Advanced Imaging, pages 26 and 28.

Press Release from Internet dated June 24, 1997 "Curtis Mathes Holding Corp."

Press Release from Internet dated November 5, 1997 "IBM and Magnifi"

Press Release from Internet dated October 28, 1997 "Mitsubishi Electronics America Inc."

Press Release from Internet dated October 22, 1997 "Why Microsoft's Operating System Should Be Accessible to All Legitimate Competitors"

Press Release from Internet dated October 28, 1997 "Gemstar International Group Limited"

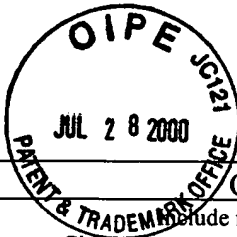
Press Release from Internet dated October 29, 1997 "Gemstar's StarSight Interactive Program Guide Part of a Full-Service Package"

Press Release from Internet dated October 6, 1997 "Acorn Provides Enhanced Java Support"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 10 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11



RECEIVED
1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated October 6, 1997 "The Acorn Group today announced"

Press Release from Internet dated October 14, 1997 "Excalibur Technologies Corp."

Press Release from Internet dated October 7, 1997 "Gartner Symposium/ITEXPO '97"

Press Release from Internet dated October 8, 1997 "Virage, Inc."

Press Release from Internet dated September 17, 1997 "Oracle Corp."

Press Release from Internet dated January 28, 1997 "Iterated Systems Announces Partnership With Emc"

"Tuned Into the Web", BYTE, December 1996, page 40.

Press Release from Internet dated May 19, 1997 "NetChannel expands TV through the power of the Internet"

Press Release from Internet dated May 19, 1997 "Spyglass to Co-Develop Thomson Program Guide for RCA Set-Top Box"

Press Release from Internet dated May 19, 1997 "Combined NetChannel service sets standard for new TVSP"

Press Release from Internet dated May 15, 1997 "Faroudja Laboratories has filed a lawsuit"

Press Release from Internet dated May 13, 1997 "Curtis Mathes technology goes beyond the competition with easy all-in-one system for home televisions"

Press Release from Internet dated October 29, 1997 "New Utility can also be configured to delete cookie and history"

KOPP, GREG, ET AL., "Stay Tuned: Photonic Filters Color Your World", Photonics Spectra, March 1997, pages 125-130.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 11 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

ROBINSON, GAIL, "Chip senses fingerprints for low-cost security", Electronic Engineering Times, June 23, 1997, page 41.

COSTLOW, TERRY, "Fingerprint ID points to sales", Electronic Engineering Times, June 23, 1997, pages 49 and 68.

ERIKSSON, LARRY J., "A Primer on Active Sound and Vibration Control", SENSORS, February 1997, pages 18-31.

DAVIS, ANDREW W., "Cutting Time to Market by Alliance: Collaboration for Standards-Based A/V Product Development", Advanced Imaging, January 1997, pages 38-40.

CARLSON, BRIAN, "Flat Panel X-Ray & Visible Image Capture-Filmless", Advanced Imaging, page 14.

National Aeronautics and Space Administration Contract No. NAS7-918, Technical Support Package on "ELECTRONIC "NOSES" MADE FROM CONDUCTIVE POLYMERIC FILMS", for July 97 NASA Tech Brief, Vol. 21, No. 7, Item #103.

National Aeronautics and Space Administration Contract No. NAS7-918, Technical Support Package on "ACOUSTIC WIND-VELOCITY ANALYZER", for July 97 NASA Tech Brief, Vol. 21, No. 7, Item 115.

BINDRA, ASHOK, "Compression Schemes Enhance Video", Electronic Engineering Times, March 31, 1997, pages 86 and 97.

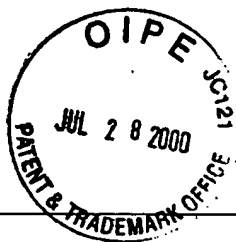
Press Release from Internet dated October 1, 1996 "Blueridge Technologies"

Press Release from Internet dated October 8, 1996 "Excalibur Gives Global Access to Lotus Notes and Other Mission-Critical Information"

Press Release from Internet dated October 7, 1996 "Excalibur Technologies Corp. and Sequent Computer Systems Inc."

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 12 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated October 4, 1996 "Excalibur Technologies Corp."

Press Release from Internet dated May 27, 1997 "Aptex Software Inc."

COSTLOW, TERRY, ET AL., "Copy-protection moves cast new cloud over DVD", EE Times, September 15, 1997, pages 1 and 4.

Internet Article "Numinous Technologies, Inc."

Internet Article "1.1 Visual information retrieval"

Internet Article "1.1.1 Why unconstrained imagery?"

Internet Article "John R. Smith"

Internet Article "Content-based Video Retrieval Intro"

Internet Article "R. Manmatha (manmatha@cs.umass.edu)"

Internet Article "CIIR Multi-media Indexing (manmatha@cs.umass...)"

Internet Article "Image-Based Recognition using Learning for Generalizing Parameters"

Internet Article "abstract.html at www.c3.lanl.gov"

Internet Article "View-Based Recognition using SHOSLIF"

Internet Article "Abstract of Aniko Simon' PhD thesis"

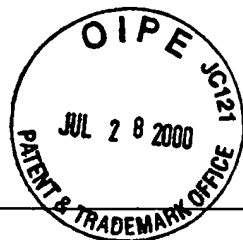
Internet Article "Video Processing for Content Based Retrieval", Video Databases

Internet Article "Current Research on Video and Image Databases"

Internet Article "IMage DataBase Project General Information"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 13 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

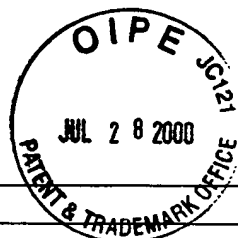
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
py		Internet Article "Image Database with Relevance Feedback", Project Description
		Internet Article "B.S. Manjunath"
		Internet Article "Content Based Image Search Technical Papers"
		Internet Article "Special Issue of Image Communication on MPEG-4", MPEG-4 Special Issue
		Press Release from Internet dated December 9, 1997 "Cubic VideoComm"
		Press Release from Internet dated December 4, 1997 "Macrovision Corporation"
		Press Release from Internet dated September 17, 1997 "Oracle Corp."
		Internet Article "Fast Multiresolution Image Querying"
		Internet Article "MPI Video: Content-Centric Interactivity and Gestalt Video"
		Internet Article "ImageGREP: Fast Visual Pattern Matching in Image Databases"
		Internet Article "Similarity Indexing: Algorithms and Performance" by David A. White
		Biography Information for Dave White, "Dave White's Web Page"
		Internet Article "Patter Analysis and Applications Journal", Deja News-Article
		IEEE Workshop on Content-Based Access of Image and Video Libraries (In Conjunction with CVPR'97) June 20, 1997
		Press Release from Internet dated September 16, 1997 "Texas Instruments Incorporated"
		Press Release from Internet dated September 23, 1997 "New Modular Videophone Retails for \$329"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 14 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11



RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated September 23, 1997 "New Modular and Set-Top Videophones with Web Browsing Capability"

Press Release from Internet dated September 30, 1997 "Go-Video, Inc."

Press Release from Internet dated November 5, 1997 "Easy-to-Use TV Phone Turns Regular Phone Calls Into Video Phone Calls"

Press Releases from Internet dated October 3, 1997 "ISLIP Media, Inc."

Press Release from Internet dated September 16, 1997 "New WebTV(R) Plus System"

Press Release from Internet dated September 15, 1997 "Informix Software, Inc."

Press Release from Internet dated September 15, 1997 "Industry Leaders Endorse Virage's Compelling Solutions"

Press Release from Internet dated September 21, 1995 "Belmont Research awarded ARPA SBIR Phase II", Belmont Research image retrieval

WebSeek at Columbia University, "A Content-Based Image and Video Catalog and Search Tool for the Web"

Bibliography of Papers on Multimedia Retrieval

Internet Article dated September 21, 1997 "WEB TV"

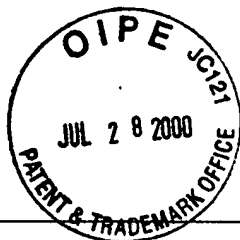
"Divx Comment Page", Anti-Divx comment page

Press Release from Internet dated September 15, 1997 "Informix Software, Inc."

Press Release from Internet dated September 15, 1997 "Perspecta"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 15 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

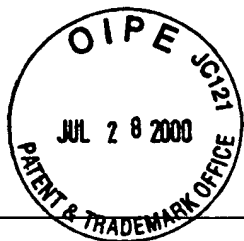
RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
24		Press Release from Internet dated September 15, 1997 "Extends Leadership in Knowledge Retrieval With Excalibur Internet"
		Press Release from Internet dated September 10, 1997 "Excalibur Technologies Corp."
		Press Release from Internet dated September 8, 1997 "Knowledge Retrieval Leader"
		Press Release from Internet dated August 21, 1997 "Excalibur Technologies Corp."
		Press Release from Internet dated September 17, 1997 "Virage and Oracle Announce First Availability of Compelling Media"
		Press Release from Internet dated September 15, 1997 "Industry Leaders Endorse Virage's Compelling Solutions"
		Press Release from Internet dated September 15, 1997 "Sun Microsystems, Inc."
		Human Media Project "Trademark Database Research at Electrotechnical Laboratory"
		Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11 N1686, MPEG97/ "Report on MPEG-7 Seminar in Bristol"
		THOMAS, OWEN, "Launch Takes Music Personally", The Red Herring Online, November 7, 1997.
		DAMORE, KELLEY, "Fractal compression gets boost from showbiz world. (Total Multimedia Inc., Iterated Systems Inc.'s Poem and TMM Producer video compression software and tools), InfoWorld, Dec. 21, 1992, v14, n51, pl(2).
		HARTMANN, GEORG, "Motion induced transformations of spatial representations: Mapping 3D information onto 2D", Neural Networks v 5 n 5, Sep-Oct 1992, pages 823-834.
		CHANG, SHI-KUO, ET AL., "Image information systems: Where do we go from here?", IEEE Transactions on Knowledge and Data Engineering v 4 n 5 Oct 1992, pages 431-442.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 16 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
pg ↓		JUNG, ET AL., "Simulating human tasks using simple natural language instructions", EI Monthly No. EIM9302-007786, Piscataway, NJ, pages 1049-1057
		AN, J.M., ET AL., "Role of domain coverage and consensus in a network of learning and problem solving systems", IEEE, Computer Society, Los Alamitos, CA, USA pages 443-453
		INUZUKA, NOBUHIRO, ET AL., "Representation and learning of concepts based on scope", IEEE, Computer Society, Los Alamitos, CA, USA pages 1617-1621.
		KOZAITIS, SAMUEL P., ET AL., "Optical estimation of fractal dimension for image assessment", Proceedings of SPIE-The International Society for Optical Engineering v 1702, pages 186-191.
		FISHER, YUVAL, ET AL., "Fractal image compression for mass storage applications", Proceedings of SPIE- The International Society for Optical Engineering v 1662, pages 244-255.
		GREENWOOD, DAN, "Application of neural networks to drone control", International Telemetering Conference v 26, pages 775-781.
		ADAMS, FRANK, ET AL., "A parallel network for visual cognition", IEEE Transactions on Neural Networks v 3 n 6 Nov 1992, pages 906-922.
		ADACHI, TOSHIO, ET AL., "Feature selection for neural network recognition", IEEE, pages 696-701.
		Internet Article re: "Magnifi" and brochure entitled "New Media Data Management"
		PEARSON, BILL, "1394 Digital Content Protection: How Does It Work?", Multimedia Systems Design, November, pages 20-27.
	ALLAN, JAMES, "Multimodal indexing, retrieval, and browsing: Combining content-based image retrieval with text retrieval", Computer Science Dept. Univ. of Massachusetts, Multimodal IR at UMass	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 17 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

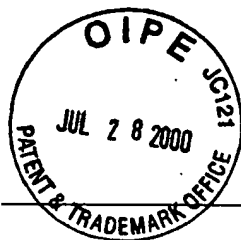
Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
pg		Internet Article "Steve Gallant Publications"
		Internet Article "Color-based Image Retrieval"
		Internet Article "Instructions for the Demo"
		CIIR-DARPA/PTO Project, Browsing, Discovery and Search in Large Distributed Databases of Complex and Scanned Documents
		Press Release from Internet dated June 1, 1998 "Sybase and Excalibur Technologies Deliver Innovative Video Retrieval Solution for the Net"
		Press Release from Internet dated May 29, 1998 "PBS Licenses Excalibur Knowledge Retrieval Products to Create Advanced Online Applications"
		Press Release from Internet dated August 4, 1998 "BrainTech, Inc. will launch a marketing effort with UTMC Microelectronic Systems Inc."
		Press Release from Internet dated July 8, 1998 "BrainTech, Inc. Teams with UTMC on Vision System Project and BrainTech's Odyssey Development System Marketing"
		Press Release from Internet dated July 6, 1998 "BrainTech, Inc. Teams with UTMC on Vision System Project and BrainTech's Odyssey Development System Marketing"
		HOOGE, CHARLES, "Fuzzy Logic Pattern Recognition Beyond Neural Networks", Vision Systems Design, January 1998, pages 32-37.
		Material from BrainTech website
		RAMSTEIN, CHRISTOPHE, "Adaptive User Interfaces with Force Feedback", Performance Support Systems Group, Centre for Information Technology Innovation, http://www.uni.paderborn.de/chi96/EIPub/WWW/chi96www/videos/Ramstein/Cr_ami.htm

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 18 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

WON, ANNIKA, "What is an Intelligent Interface?", Notes from an Introduction seminar, March 1997, <http://www.sics.se/~annika/papers/intint.html>

BRUSILOVSKY, PETER, ET AL., "Visual annotation of links in adaptive hypermedia", International Center for Scientific and Technical Information, http://www.acm.org/sigchi/chi95/Electronic/documnts/shortppr/plb_bdy.htm

RITCHIE, GILL, "Human Computer Interaction Archive", The London Parallel Applications Centre, <http://hypatia.dcs.qmw.ac.uk/SEL-HPC/Articles/GeneratedHtml/hci.adapui.html>

OPPERMANN, REINHARD, ET AL., "Adaptability and Adaptivity in Learning Systems", Knowledge Transfer, Volume II. 1997, pages 173-179, http://zeus.gmd.de/~kinshuk/papers/k97_gmd.html

MARCHIONINI, GARY, "Interfaces and Psychological Theory", Oct 91 Psychological Dimensions of User-Computer Interfaces, ERIC Digest, http://www.ed.gov/databases/ERIC_Digests/ed337203.html

Press Release from Internet dated August 11, 1998 "Net Perceptions Enters Exclusive Partnership with Neural Applications"

Press Release from Internet dated August 11, 1998 "Engage Technologies and Net Perceptions Join Forces to Deliver Market-Leading Internet Personalization Solutions"

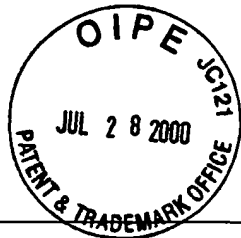
Press Release from Internet dated August 5, 1998 "N2K's Music Boulevard Prefers Visa"

Press Release from Internet dated August 3, 1998 "K-tel International to Offer Online Digital Downloads via Liquid Audio"

Press Release from Internet dated August 3, 1998 "N2K's Music Boulevard to Offer Customer-Created Miles Davis CDs"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 19 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

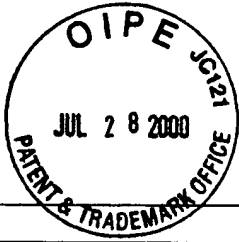
RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
<u>PL</u>		Press Release from Internet dated July 22, 1998 "N2K Inc. Announces Record 1998 Second Quarter Revenue of \$10.0 Million"
		Press Release from Internet dated February 17, 1999 "MGI Software Previews Breakthrough Digital Video Technology for Intel's Forthcoming Pentium III Processor"
		Press Release from Internet dated February 9, 1999 "InfoValue Releases Industry's Fastest, NT-Compatible Video-on-Demand Software"
		Press Release from Internet dated August 12, 1998 "InterVU Launches Rich Media Site"
		Press Release from Internet dated August 3, 1998 "NEC Introduces New Multimedia Search Engine for the Web"
		Press Release from Internet dated December 22, 1998 "Varo Vision to Integrate Iomega's Klik Drive into Digital Audio Products"
		Press Release from Internet dated August 11, 1998 "IBM, Record Companies in Talks for Internet Music Distribution"
		Press Release from Internet dated August 6, 1998 "Aris Technologies, Inc. Announces Strategic Relationship with Online Music Company"
		Press Release from Internet dated July 28, 1998 "SESAC Renews Agreement with Long-Time Licensee Muzak"
		Press Release from Internet dated December 9, 1997 "Applied Magic and Quadrant International Announce ADV601LC-Based Products"
		Press Release from Internet dated August 5, 1998 "New Standalone Embedding Tool Simplifies and Automates Digimarc Embedding Process for Web Publishing"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 20 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

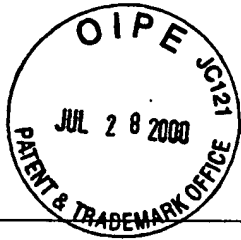
RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
PJ		Press Release from Internet dated August 4, 1998 "Macrovision Corporation and Trimark Pictures Sign DVD Copy Protection Agreement"
		Press Release from Internet dated July 28, 1998 "Macrovision, Philips, and Digimarc Join Forces to Propose New Digital Watermarking and Play Control Standard"
		Press Release from Internet dated July 27, 1998 "Macrovision Corporation Reports Record Net Revenues, Net Income and Earnings Per Share for Second Quarter"
		Press Release from Internet dated July 7, 1998 "Number of Macrovision-Encoded Cassettes Exceeds Two Billion Plateau"
		Press Release from Internet dated July 15, 1998 "Digimarc Software Chosen by Adobe for Adobe Image Ready 1.0"
		Press Release from Internet dated July 20, 1998 "Digimarc Turns Online Images Into Powerful Marketing Agents"
		Press Release from Internet dated July 30, 1998 "Corbis and Alta Vista Launch the World's Largest Consumer Online Picture Search"
		Internet Article "Consumer and Professional Digital Video Recording and Data Formats", http://www.adaptec.com/technology/standards/1394formats.html .
		MC WILLIAMS, BRIAN, "Encryption Plan Proposed for Digital Video", PC World News Radio, February 19, 1998, http://www1.pcworld.com/news/daily/data/0298/980219175243.html .
		Press Release from Internet dated November 13, 1998 "New Digital Copy Protection Proposal Would Secure Authorized Copies", http://www.zenith.com/main/pr_documents/pr.hdtv.111398.html .

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 21 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
pts		Copy Management in the Digital Era, An AES Workshop at the Audio Engineering Society Convention Amsterdam, May 16-19, 1998, http://diva.eecs.berkeley.edu/~linnartz.aes/main/aes.html .
		Press Release from Internet dated January 18, 1999 "Intel and RSA to Accelerate Delivery of New PC and Application Security Products", http://developer.intel.com/pressroom/archive/releases/cn118996b.htm .
		Internet Article "1394 TA Related Websites", http://www.1394ta.org/abouttech/weblink.html .
		Internet Article "Energy Conservation Working Group of the 1394 Trade Association (1394-PCWG)", http://www.1394-pewg.org/ .
		Internet Article "P1394B (Gigabit 1394)", http://www.zayante.com/p1394b .
		Internet Article "1394 Technologies", http://developer.intel.com/solutions/tech/1394.htm
		Internet Article "1394 High Performance Serial Bus", http://www.ti.com/sc/docs/msp/1394/1394.htm .
		Internet Article "IEEE 1394 I/O Connector System", http://www.molex.com/other/news1394.html .
		JANSEN, MICHAEL, "FireWire", http://www.engg.ksu.edu/KSE/spring96/firewire/firewire2.html .
		Internet Article, http://www.scizzl.com/SCIvsEtc.html .
		DOYLE, BOB, "DV Cassette: Here Come the Digital Video Camcorders", NewMedia Lab, http://www.dtvgroup.com/DigVideo/DVC/DVC.html .
		DYKE, TERENCE, ET AL., "Rallying Around the IEEE 1394", http://eagle.onr.com/aea/media/tvtech34.html .

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

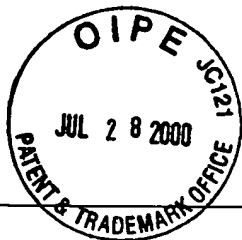
Sheet 22 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

AUG 1 2000

Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated July 20, 1998 "Digimarc Turns Online Images Into Powerful Marketing Agents"

Press Release from Internet dated February 24, 1999 "Frisby Technologies, Inc. Acquires Marketer of Cooling Vests"

Press Release from Internet dated April 5, 1999 "C-Cube to Co-Develop Advanced Digital Video Applications for PC Platforms"

Press Release from Internet dated April 1, 1999 "Frisby Technologies Inc files 12/31/98 10-K. Reports \$2.8 mil tot rev, \$-3.0.84 EPS"

Press Release from Internet dated April 6, 1999 "Phoenix Technologies' IEEE 1394 Core Licensed by C-Cube Microsystems"

Press Release from Internet dated April 6, 1999 "Strategy Analytics: Interactive video is next Internet battleground"

Press Release from Internet dated July 15, 1998 "Digimarc Software Chosen by Adobe"

Press Release from Internet dated February 17, 1999 "Apple, Compaq, Matsushita (Panasonic) Philips, Sony and Toshiba Announce Support for IEEE1394 and Plans to Form Patent Pool", www.prnewswire.com

Press Release from Internet dated July 21, 1998 "Virage Named Market Winner by Frost & Sullivan"

Press Release from Internet dated October 13, 1998 "Compaq's Alta Vista Selects Virage"

Press Release from Internet dated October 13, 1998 "Alta Vista Unveils the Most Powerful and Useful Guide to the Internet"

Press Release from Internet dated October 13, 1998 "Compaq Soups up Alta Vista with New Search Technology"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 23 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

Aug 1 2000

Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

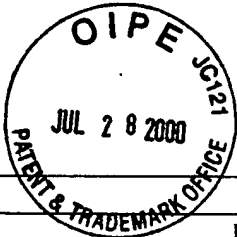
Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
RJ		Press Release from Internet dated July 22, 1998 "ISLIP Introduces MediaKey Logger", www.prnewswire.com
		Press Release from Internet dated July 21, 1998 "ISLIP and Informix Deliver Media Asset", http://www.prnewswire.com
		Press Release from Internet dated July 21, 1998 "IBM and ISLIP Announce Agreement", http://www.prnewswire.com
		Press Release from Internet dated January 18, 1999 "Replay TV Featured at David Coursey's Showcase '99", http://www.prnewswire.com
		Press Release from Internet dated January 7, 1999 "Replay Networks Inc. Announces Backing by Vulcan Ventures, Inc."
		Press Release from Internet dated January 7, 1999 "Replay Networks and E! Entertainment Television Networks Sign Agreement"
		Press Release from Internet dated February 8, 1999 "ReplayTV Selected to Show Breakthrough Technology at DEMO '99"
		Press Release from Internet dated February 10, 1999 "Replay Networks, Inc. Announces Entertainment Advisory Council"
		Discovery Communications, Inc. webpage
		Press Release from Internet dated April 7, 1997 "Discovery Communications Selects HP's Broadcast Server"
		Press Release from Internet dated January 6, 1999 "Philips Announces Personal TV"
		Press Release from Internet dated July 28, 1998 "Gemstar Files Patent Infringement Lawsuit Against Prevue Networks, Inc."

INFORMATION DISCLOSURE STATEMENT BY APPLICANT **RECEIVED**

Sheet 24 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated July 29, 1998 "Gemstar International Group Limited Reports First Quarter Financial Results"

Press Release from Internet dated July 22, 1998 "Gemstar Responds to United Video Announcement"

Press Release from Internet dated July 22, 1998 "United Video Satellite Group's Offer for Gemstar Withdrawn", <http://www.prnewswire.com>

Press Release from Internet dated July 16, 1998 "Gemstar Rejects United Video Proposal"

Press Release from Internet dated August 3, 1998 "Gemstar to Launch VCR Plus+ System in Mexico"

Press Release from Internet dated August 3, 1998 "GE's NBC and GE Capital to Buy 6% of Intertainer for \$3 Million"

Press Release from Internet dated July 16, 1998 "NBC and Gemstar Announce Agreement for Interactive Program Guide on TVs, VCRs and Satellite Systems"

Press Release from Internet dated August 12, 1998 "Thomson Multimedia Signs Early Adopter Agreement with Cross-Industry Group for Enhanced Television Specifications", <http://www.prnewswire.com>

Press Release from Internet dated February 17, 1999 "Gemstar EPG Advertising Goes Live Nationwide"

Press Release from Internet dated February 8, 1999 "Gemstar International Group Limited Reports Third Quarter Financial Results"

Press Release from Internet dated August 11, 1998 "Iterated Systems Announces Agreement with MCI Telecommunications Corporation"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

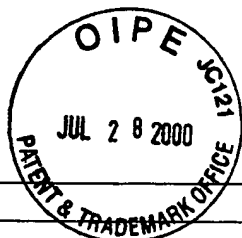
Sheet 25 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

AUG 1 2000

Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

TASCHEK, JOHN, "Will Video Indexing Kill Off the Database?", PC Week, October 12, 1998, page 63.

CANTRELL, TOM, "FireWire getting hot", Computer Design, October 1997, page 81-85.

COSTLOW, TERRY, "Hard drives tuned for foray into prime-time TV", Electronic Engineering Times, December 21, 1998, pages 6, 10.

Internet Article "Just Play It Again, Sam", <http://www.newsweek.com>

Internet Article "Watch it Your Way", <http://popularmechanics.com>

Internet Article "Replay TV Lets Viewers Take Control, Watch TV on Their Own Schedules", <http://www.gadgetguru.com>

Internet Article "For TV Watchers, Pause Stops Time", <http://www.nydailynews.com>

Internet Article "Have Fun", <http://www3.techstocks.com>

Internet Article "Jesse Berst's Anchor Desk", <http://www.zdnet.com>

Internet Article "ReplayTV - The Tool for Serious Couch Potatoes", <http://cnnfn.com>

Press Release from Internet dated December 17, 1998 "Replay Networks, Inc. to Start National Service Trials Next Week"

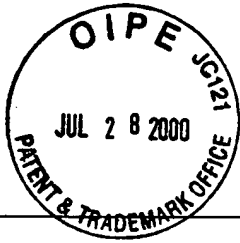
Press Release from Internet dated January 6, 1999 "ReplayTV Wins CES 1999 'Best of Show' Award"

Press Release from Internet dated February 10, 1999 "Scientific-Atlanta and Cox Communications Announce Deployment of Explorer 2000"

Press Release from Internet dated February 10, 1999 "Replay Networks, Inc. Announces Entertainment Advisory Council"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 26 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

AUG 1 2000

GROUP 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

ply

Press Release from Internet dated January 28, 1999 "ReplayTV Racks Up Top Industry Awards"

Internet Articles "Replay Networks", <http://www.replaytv.com>

Internet Articles and Biography on David Benyon, <http://umuai.informatik.uni-essen.de/benyon.html> and <http://www.dcs.napier.ac.uk/~dbenyon/publ.html>

Internet Article "Thomson Consumer Electronics", <http://www.vtopia.com>

Press Release from Internet dated March 25, 1999 "Microsoft's U.K. WebTV Tests Joined by MTV, Saatchi"

Press Release from Internet dated March 25, 1999 "UK couch potatoes warm to Microsoft WebTV"

Press Release from Internet dated January 21, 1999 "Metabyte Announces Personalized TV Software", <http://www.prnewswire.com>

Internet Article re MbTV - Metabyte, Inc., <http://www.metabyte.com>

Press Release from Internet dated March 30, 1999 "TiVo and Showtime Networks Bolster Relationship, Announce New Equity Investment"

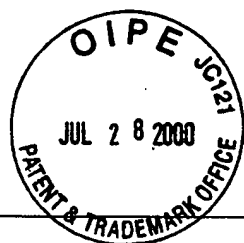
Press Release from Internet dated March 26, 1999 "Microsoft Acquires Numinous, Graphics Software Startup"

Press Release from Internet dated March 30, 1999 "Alta Vista Unveils New Multi-Media Search Technology"

Press Release from Internet dated March 24, 1999 "Forrester: Personal Video Recorders Will Bring Fundamental Changes to Television Networks"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 27 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

AUG 1 2000

Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
pt		Press Release from Internet dated December 30, 1998 "TiVo's New Year's Resolution"
		Press Release from Internet dated December 21, 1998 "Quantum Corporation and Tivo, Inc. Announce Strategic Alliance Enabling Consumers to Take Control of Live Television"
		Press Release from Internet dated December 21, 1998 "TiVo Debuts TView, a Revolutionary Distributed Television Viewing Management Platform for the TV Industry"
		Press Release from Internet dated December 21, 1998 "TiVo, Inc. and Quantum Corp. Announce Strategic Alliance Enabling Consumers to Take Control of Live Television"
		Press Release from Internet dated December 21, 1998 "TiVo, Inc. Poised to Transform Television Through Debut of Breakthrough Personal TV Service"
		Press Release from Internet dated December 22, 1998 "TiVo forms tie with Quantum"
		Press Release from Internet dated January 14, 1999 "Wink Communications Expands Management Team", http://www.prnewswire.com
		Press Release from Internet dated January 18, 1999 "Broadcasters Set to Challenge ISPs for Interactive Service Dominance Says Strategy Analytics", http://www.prnewswire.com
		Press Release from Internet dated January 14, 1999 "TiVo Steps Into the Ring with Showtime for Tyson vs. Botha Bout"
		Press Release from Internet dated January 7, 1999 "TiVo Inc. Announces Vulcan Ventures Investment"
		Press Release from Internet dated January 4, 1999 "Hot Technology Companies: 140 Qualify in December"
		Press Release from Internet dated January 8, 1999 "Billionaire Paul Allen to Invest in Television Startup TiVo"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

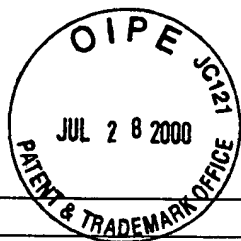
Sheet 28 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

AUG 1 2000

Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated January 8, 1999 "TiVo Personal Television Service", <http://www.gadgetguru.com>

Press Release from Internet dated January 28, 1999 "TiVo Brings Home HBO Through Agreement Benefitting Personal Television Service Users"

Press Release from Internet dated January 28, 1999 "TiVo Personalized Television Service Inks Showtime Relationship"

Press Release from Internet dated January 27, 1999 "Charter, TCI to Buy InterMedia Units for \$2.4 Bln"

Press Release from Internet dated January 26, 1999 "TiVo and ZDTV "Get Networked"

Press Release from Internet dated January 26, 1999 "TiVo and the Weather Channel to Deliver Showcased Programming and Predictions for TiVo Personal TV Service"

Press Release from Internet dated February 16, 1999 "TiVo Inc. and General Motors Announce Charter Advertising Partner Agreement"

Press Release from Internet dated February 17, 1999 "Paul Allen's Charter to Acquire Cable-TV Systems in 18 States"

Press Release from Internet dated February 2, 1999 "Television Industry Embraces TiVo at NATPE"

Press Release from Internet dated February 4, 1999 "Watching Super Bowl XXXIII: What the Viewers Missed...and a Solution from Quantum Corporation"

Press Release from Internet dated February 8, 1999 "TiVo to Highlight 'Broadband' TiVo Services at Demo '99"

Press Release from Internet dated February 8, 1999 "Home PC Market Gets a Free Ride from Innovative Business Launched at Demo 99", <http://www.prnewswire.com>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

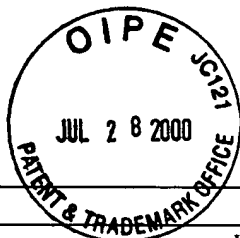
Sheet 29 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

ALL 1 2000

Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated March 29, 1999 "Philips, Tivo to Sell Personal Video Recorders, WSJ Reports"

Press Release from Internet dated March 29, 1999 "Personal TV Recorder Debuts"

Press Release from Internet dated March 29, 1999 "Replay Networks and Showtime Networks, Inc. Announce Personal TV Deal for Showtime, The Movie Channel, Sundance Channel and FLIX"

Press Release from Internet dated March 29, 1999 "Replay Networks, Inc. Announces \$8 Million Investment with Venture Firm Kleiner Perkins Caufield & Byers as Lead Investor"

Press Release from Internet dated February 8, 1999 "FULL TEXT-TriVision <TVL.TO>Q3 results"

Press Release from Internet dated February 2, 1999 "Sharp Corporation First to License Tri-Vision's Flexible V-gis V-chip Technology"

Press Release from Internet dated September 15, 1998 "Intel Announces Industry's First Single-Chip Silicon Solution for Home Networking", <http://www.intel.com>

Press Release from Internet dated March 29, 1999 "Kiss Your VCR Goodbye", <http://www.wired.com>

Press Release from Internet dated December 18, 1998 "The TV That Watches Back", <http://www.wired.com>

Press Release from Internet dated January 5, 1999 "Only Two More Days Until TiVo Changes Television Forever!"

Press Release from Internet dated January 8, 1999 "Harris Radio ICs Selected for ShareWave's Wireless Multimedia Home Networking Solutions", <http://www.prnewswire.com>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 30 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

AUG 1 2000

Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Internet Article "The Home Phoneline Networking Alliance - Simple, High-speed Ethernet Technology for the Home", A White Paper, June, 1998

Internet Article "21145 Phoneline/Ethernet LAN controller", <http://developer.intel.com>

Internet Articles "About TiVo", "TiVo Press", "Who is TiVo", "TiVo Jobs", "Contact TiVo", <http://www.tivo.com>

PITTA, JULIE, "Interactivity: the Great White Whale", Forbes, September 21, 1998.

HEALEY, JON, "Start-up aims for TV on demand", San Jose Mercury News, August 21, 1998, <http://www4.mercurycenter.com>.

"No Slacking in Silicon Valley", Business Week, August 17, 1998, <http://www.tivo.com>

Internet Article "New Guides Put More Power in TV Viewers' Hands, San Francisco Chronicle, August 20, 1998, <http://www.sfgate.com>

EWELL, MIRANDA, "The Valley's Mentor", San Jose Mercury News, March 8, 1998, <http://www4.mercurycenter.com>

CLAYMON, DEBORAH, "One To Watch", The Red Herring Magazine, August 1998, <http://www.redherring.com>

Internet Article on IVP, <http://www.ivp.com>

Internet Article on New Enterprise Associates (NEA), <http://www.nea.com>

COSTLOW, TERRY, "Hard drives tuned for foray into prime-time TV", Electronic Engineering Times, December 21, 1998, pages 6 and 10.

Internet Article "A new approach to TV viewing", <http://www.usatoday.com>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 31 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED

AUG 1 2000

Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Internet Article "Program Guides", http://www.yahoo.com/Business_and_Economy

Internet Article "WinAMP Streaming MP3 Revolution Begins!", <http://geekreport.com>

Internet Article "The ultimate TV gadget?", <http://www.slashdot.org>

HEALEY, JON, "Smart TV recorders get another player", San Jose Mercury News, September 10, 1998, <http://www.sjmercury.com>

HEALEY, JON, "Start-up aims for TV on demand", San Jose Mercury News, August 20, 1998, <http://www.mercurycenter.com>

GURLEY, J. WILLIAM, "How the Web Will Warp Advertising", Fortune, November 9, 1998, <http://www.pathfinder.com>

Internet Article "A new approach to TV viewing", USA Today, September 14, 1998, <http://www.usatoday.com>

TARR, GREG, "Personalized TV System Heads to Retail Shelves", November 16, 1998, <http://www.twice.com>

Internet Article "TCI Targets JamTV", <http://geekreport.com>

Internet Article "TiVo Trials Begin", <http://geekreport.com>

HETTRICK, SCOTT, "'PVRs' called threat to nets", The Hollywood Reporter

Internet Article "Intel 21145 Phonenumber/Ethernet LAN Controller Product Brief"

Corporate Profile for ACTV, Inc.

Press Release from Internet dated March 18, 1999 "ACTV Names Art Cohen Senior Vice President of Advertising & E-commerce"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT **1 2000**

Sheet 32 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

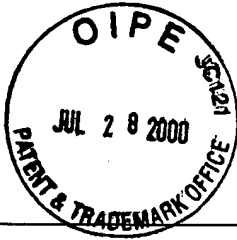
Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

- pls*
- Press Release from Internet dated January 25, 1999 "Scientific-Atlanta's Explorer 2000 Advanced Digital Set-Top Will Support ACTV's 'Individualized Television'"
- Press Release from Internet dated January 29, 1999 "Bridge Technology Group LLC Comments on Recent ACTV Agreement"
- Press Release from Internet dated January 19, 1999 "Bridge Technology Group LLC Reports First Quarter Results on Stock Picks"
- Press Release from Internet dated August 4, 1997 "Nextlevel Systems, Inc. Invests in ACTV and Enters into Joint Marketing Program", <http://www.actv.com>
- Press Release from Internet dated May 4, 1998 "Rainbow Sports & ACTV to Launch Digital Network Featuring Fox Sports Bay Area Programming", <http://www.actv.com>
- Press Release from Internet dated August 11, 1998 "Sun Microsystems and ACTV Net to Provide Virtual Learning Solution", <http://www.actv.com>
- Press Release from Internet dated August 18, 1998 "School District of Philadelphia Expands Contract for ACTV Net's eSchool Online", <http://www.actv.com>
- Press Release from Internet dated September 15, 1998 "Liberty Media Invests in ACTV, Inc.", <http://www.actv.com>
- Press Release from Internet dated October 8, 1998 "ACTV Signs New Contracts to Deliver eSchool Online in New York City and Massachusetts", <http://www.actv.com>
- Press Release from Internet dated November 25, 1998 "The Box Music Network and ACTV to Explore Enhanced Programming", <http://www.actv.com>
- Press Release from Internet dated December 3, 1998 "Skyconnect & ACTV to Offer New Opportunities for Digital Advertising", <http://www.actv.com>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 33 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated January 25, 1999 "Scientific-Atlanta's Explorer 2000 Advanced Digital Set-Top Will Support ACTV's "Individualized Television", <http://www.actv.com>

Press Release from Internet dated April 26, 1999 "TiVo Selects Atmel's Smart Card Crypto Controller for Authentication and Security; AT90SC3232C Offers Highest Security", <http://www.businesswire.com>

Press Release from Internet dated April 26, 1999 "Replay Networks, Inc. Launches New Era in Television As Personal TV Leader Ships Award-Winning ReplayTV"

Press Release from Internet dated April 19, 1999 "TiVo and Replay Networks License Macrovisions's Copy Protection Technology", <http://www.businesswire.com>

Press Release from Internet dated April 19, 1999 "Quantum is First to Market With End-to-end Storage Solution for Digital Video Applications"

PEARSON, BILL, "1394 Digital Content Protection: How Does It Work?", Multimedia Systems Design Magazine, November, pages 20-27.

HARA, YOSHIKO, "JVC, Sony push D-VHS as home digital recorder", Electronic Engineering Times, April 5, 1999, page 26.

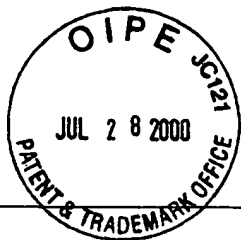
GOLDBERG, LEE, "Integrated Tuner Circuit Puts Television in New Places", Electronic Design, January 25, 1999, pages 34, 36, 38, 40.

BANNON, KAREN J., "Home Networking System Includes Phone Gear", Inter@ctive Week, February 8, 1999.

Internet Articles "Context-Aware Computing" and "MIT Papers on Context Awareness in Wearable Computing", <http://www.media.mit.edu>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 34 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Internet Article "Visual Contextual Awareness in Wearable Computing" Perceptual Computing TR#465, MIT Media Laboratory to appear IEEE ISWC '98, <http://testarne.www.media.mit.edu>

SAWHNEY, NITIN, ET AL., "Nomadic Radio: Scaleable and Contextual Nofigation for Wearable Audio Messaging", Proceedings of CHI'99, the ACM SIGHI Conference on Human Factors in Computing Systems, May 15-20, Pittsburgh, PA Copyright 1999 ACM.

Press Release from Internet dated April 27, 1999 "Building a Smarter House", <http://www.abcnews.go.com>

Press Release from Internet dated March 26, 1999 "Microsoft buys Numinous Tech", <http://www.news.com>

OGLE, VIRGINIA E., ET AL., "Chabot: Retrieval from a Relational Database of Images", University of California, Berkeley, <http://http.cs.berkeley.edu>

Internet Article "Research in Video and Image Libraries: Browsing, Retrieval, Annotation", <http://www-white.media.mit.edu>

Internet Article "Efficient Management of Image and Video Data" Alexandria Digital Library Project, <http://vivaldi.ece.ucsb.edu>

PICARD, ROSALIND (ROZ), Internet Home Page Information, <http://vismod.www.media.mit.edu>

Internet Article "Integration, Management and Processing of Images for High-end Applications - CBIR Internet-sites", http://iris.elis.rug.ac.be/pds/imvb_sites.html

Internet Article "Local copies of CBIR-articles", http://telin.rug.ac.be/pds/imvb/list_available_art.html

Internet Article "Color Based Image Retrieval Exploiting JPEG Scheme", <http://www.cacs.usl.edu/~zx19826/599/img.html>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 35 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

EAKINS, JOHN P., ET AL., "Content-BASED Image Retrieval", A Report to the JISC Technology Applications Programme, Institute for Image Data Research, University of Northumbria at Newcastle, <http://www.unn.ac.uk/iidr/report.html>

Internet Article "Call for Papers - Special Issue on Image and Video Processing for Digital Libraries", IEEE Transactions of Image Processing, <http://vivaldi.ece.ucsb.edu/tip-special-cfp.html>

Internet Article "Publications and Proposals", <http://www.ifp.uiuc.edu/~yrui/html/publication.html>

WILF, ITZHAK, "Computer, Retrieve for Me the Video Clip of the Winning Goal", Advanced Imaging, August 1998, pages 53-55.

JACOBS, CHARLES E., ET AL., "Fast Multiresolution Image Querying", Department of Computer Science and Engineering; University of Washington, Seattle, WA 98195

Press Release from Internet dated March 23, 1999, "Net Video Coming of Age?", <http://www.wired.com/news/print>

Press Release from Internet "ACTV & Prevue Networks to Demonstrate Integrated Digital Capabilities at the Western Show", <http://www.actv.com/newpage/press/actvpvue.html>

Research Update dated September 30, 1998 Neidiger/Tucker/Bruner, Inc. Recommendation Speculative BUY-SB, <http://208.246.40.20/newpage/report/middle.html>

Internet Article "Internet Learning", <http://208.246.40.20/newpage/internet/middle.html>

Internet Article "Individualized Television", <http://208.246.40.20/newpage/tv/middle.html>

Internet Article "Entertainment", <http://208.246.40.20/newpage/entertain/middle.html>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 36 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

National Aeronautics and Space Administration Contract NO.\NAS\7-918 Technical Support Package on System Finds Objects of Interest in an Image Data Base for April 98, NASA Tech Brief Vol. 22, No. 4, Item #156 from JPL New Technology Report NPO-20213

Internet Article "The Application of Metadata Standards to Video Indexing", <http://www.dstc.edu.au/RDU/staff/jane-hunter/EuroDL/final.html>

PUZICHA, JAN, "Multiscale Annealing for Texture Segmentation, Color Quantization and Image Retrieval", Talks at the International Computer Science Institute, <http://www.icsi.berkeley.edu/talks/puzicha.html>

Internet Article "Minutes of the Domain 1 Plenary meeting (Brussels, 10 December '97), AC219-WP2-ITL-97023-MM-AC/b

Internet Article "Draft ICPR98 Conference Schedule", <http://www.cssip.elec.uq.edu.au/icpr98/schedule.txt>

Internet Article "Visual '97 Final Program", <http://vision.ucsd.edu/visual97/program.html>

"Multimedia Storage and Archiving System", SPIE Proceedings Vol. 2916, <http://www.spie.org/web/abstracts/2900/2916.html>

ZHUANG, YUETING, ET AL., "Applying Semantic Association to Support Content-Based Video Retrieval", Department of Computer Science, Zhejiang University, Hangzhou, China

RUI, YONG, ET AL., "Image Retrieval: Past, Present, and Future", Dept. of ECE & Beckman Institute, University of Illinois at Urbana-Champaign, Urbana, IL

CHANG, YUH-LIN, ET AL., "Integrated Image and Speech Analysis for Content-Based Video Indexing", Matsushita Information Technology Laboratory, Panasonic Technologies, Inc., Princeton, NJ

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

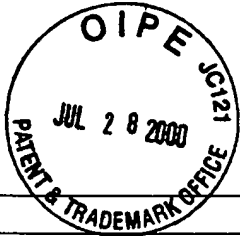
RECEIVED

1 2000

Group 2700

Sheet 37 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

RUI, YONG, ET AL., "Relevance Feedback: A Power Tool for Interactive Content-Based Image Retrieval", Dept. of ECE & Beckman Institute, University of Illinois at Urbana-Champaign, Urbana, IL, IEEE Transactions on Circuits and Video Technology, IEEE Transactions on Circuits and Video Technology

CARTS-POWELL, YVONNE, "Photonics East presents broad coverage of security technologies", SPIEWeb, OE Reports, <http://www.spie.org/web/oe/October/oct96/pepreview.html>

Internet Article "MultiMedia/Image Database Systems, Query by Image and Video Content: The QBIC System", http://www.cs.usask.ca/homepages/grads/tpg134.clotho_web_page

Internet Article "Department of Computing Science University of Alberta - Database Systems Research Group", <http://web.cs.ualberta.ca/~database/research/multimedia/multimedia.html>

Internet Article "QBIC -- IBM's Query by Image Content", <http://www.qbic.almaden.ibm.com>

Internet Article "Trial Period License Agreement for IBM Query by Image Content (QBIC)", <http://service.software.ibm.com/dl/eqbic/qbic-1>

GAUTAMA, S., ET AL., "Learning Relational Models of Shape: A Study of the Hypergraph Formalism"

GAUTAMA, S., ET AL., "Context Driven Matching in Structural Patter Recognition", Vakgroep Telecommunicatie en Informatieverwerking, Universiteit Gent, St. Pietersnieuwstraat 41, B9000 Gent, Belgium

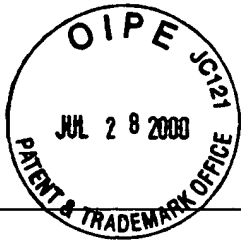
Internet Article "Sean Landis' CS718 Project, Fall 1995, <http://www.tc.cornell.edu/Visualization/Education/cs718/fall1995/landis.index.html>

Internet Article "Retrieval Experiment Results (I, II,III) and More, <http://www.cacs.usl.edu/~zx19826/599/exp1.html>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

RECEIVED
AII/C 1 2000
Group 2700

Sheet 38 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

RUI, YONG, ET AL., "Browsing and Retrieving Video Content in a Unified Framework", Reckman Institute for Advanced Science and Technology, University of Illinois at Urbana-Champaign, Urbana, IL 61801

DE LEON, AUTUMN, "Can V chips rid your TV of SMUT & VIOLENCE?", Time Digital

"On-Line Web Photo Search & Handle Capability: Let the Next Round Begin", July 1998, page 9.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11 N2469, MPEG98, October 1998, Atlantic City, USA, Call For Proposals for MPEG-7 Technology, <http://www.darmstadt.gmd.de/mobile.MPEG7/Documents/N2469.html>

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11 N1920, MPEG97, Fribourg - October 1997, MPEG-7 Requirements Group, <http://www.takilab.k.dendai.ac.jp/~kane/mpeg/mpeg-7/>

Internet Article "Technical Approach", http://www.irt.de/customtv/add_info.html

CHANG, SHIH-FU, "Content-Based Image/Video Search, Editing and Watermarking", <http://www.cnmtc.columbia.edu/news/imagesearch.html>

MPEG-7 and IR, <http://www.psy.gla.ac.uk/-steve/mpeg7.html>

Common European Newsletter, Multimedia Content Manipulation and Management, Editorial, <http://www.esat.kuleuven.ac.be/-konijn/ed4.htm>

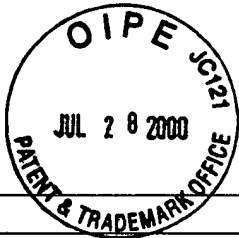
Common European Newsletter, Multimedia Content Manipulation and Management, Motion and Grey-level Based Hierarchical Segmentation of Video Sequences for Content-based Functionalities, <http://www.esat.kuleuven.ac.be/-konijn/ccett.htm>

Common European Newsletter, Multimedia Content Manipulation and Management, Editorial, <http://www.esat.kuleuven.ac.be/-konijn/ed6.htm>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

RECEIVED
AUG 1 2000
Group 2700

Sheet 39 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Common European Newsletter, Multimedia Content Manipulation and Mgmt, Special Guest Editorial- Ferran Marques UPC, <http://www.esat.kuleuven.ac.be/-konijn/ed-ferran.htm>.

Common European Newsletter, Multimedia Content Manipulation and Management, Requirements for Segmenting Content to be Coded Using MPEG-4, <http://www.esat.kuleuven.ac.be/-konijn/koenen6.htm>.

Common European Newsletter, Multimedia Content Manipulation and Management, Automatic Segmentation of Video Sequences for Video Object Generation, <http://www.esat.kuleuven.ac.be/-konijn/hannover1.htm>.

Common European Newsletter, Multimedia Content Manipulation and Management, IST Video Analysis Framework, <http://www.esat.kuleuven.ac.be/-konijn/cnet.htm>.

Common European Newsletter, Multimedia Content Manipulation and Management, Region-based Analysis of Video Sequences for Coding and Feature Extraction, <http://www.esat.kuleuven.ac.be/-konijn/gps.htm>.

Common European Newsletter, Multimedia Content Manipulation and Management, User Assisted Segmentation of Semantic Objects in Video Sequences, <http://www.esat.kuleuven.ac.be/-konijn/teltec.htm>.

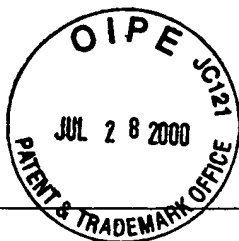
Common European Newsletter, Multimedia Content Manipulation and Management, Object Tracking for Content-based Functionalities, <http://www.esat.kuleuven.ac.be/-konijn/emparis.htm>.

Common European Newsletter, Multimedia Content Manipulation and Management, Towards Future Image Sequence Manipulation Tools, <http://www.esat.kuleuven.ac.be/-konijn/nemesis.htm>.

Common European Newsletter, Multimedia Content Manipulation and Management, Object Tracking for Content-based Functionalities, <http://www.esat.kuleuven.ac.be/-konijn/upc.htm>.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT


Sheet 40 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		Common European Newsletter, Multimedia Content Manipulation and Management, Extraction of Optical Flow and Stereo by non-linear diffusion, http://www.esat.kuleuven.ac.be/-konijn/proes.htm .
		Common European Newsletter, Multimedia Content Manipulation and Management, 3D- Based Coding of Video Sequences, http://www.esat.kuleuven.ac.be/-konijn/surrey.html .
		Common European Newsletter, Multimedia Content Manipulation and Management, Estimation and Compensation of Camera Motion for Segmentation of Moving Objects, http://www.esat.kuleuven.ac.be/-konijn/hannover2.htm .
		Common European Newsletter, Multimedia Content Manipulation and Management, Structuring a Video for Compact Visual Representation and Content-based Indexing, http://www.esat.kuleuven.ac.be/-konijn/irisa.htm .
		Common European Newsletter, Multimedia Content Manipulation and Management, Motion Tracking Based on Kalman Filtering for Recursive Spatio-temporal Segmentation and Object Tracking, http://www.esat.kuleuven.ac.be/-konijn/epfl.htm .
		Common European Newsletter, Multimedia Content Manipulation and Management, Motion Information Manipulation for Added Functionalities, http://www.esat.kuleuven.ac.be/-konijn/ucl.htm .
		Common European Newsletter, Multimedia Content Manipulation and Management, ACcenTS MCM CommissionColumn, http://www.esat.kuleuven.ac.be/-konijn/EUC7.htm .
		Common European Newsletter, Multimedia Content Manipulation and Management, AccenTS MCM CommissionColumn, http://www.esat.kuleuven.ac.be/-konijn/EUC6.htm .
		The MPEG Home Page, http://drogo.cselt.stet.it/mpeg .
		Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11 N2329, July 1998/Dublin, DRAFT MPEG-7 Evaluation Process Document (Version 3).

INFORMATION DISCLOSURE STATEMENT BY APPLICANT **RECEIVED**

Sheet 41 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

pg
Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11 N, MPEG97/February 1997, MPEG-7 FAQs.

DAVIC's IPR Policy, <http://www.davic.org/IPR.htm>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, N1686 MPEG97/ Bristol/April 1997, Report on MPEG-7 Seminar in Bristol, http://drogo.cselt.stet.it/mpeg/documents/mpeg-7_seminar_summary.htm

Common European Newsletter, Multimedia Content Manipulation and Management, MPEG7: The Next of the Family?, <http://www.esat.kuleuven.ac.be/~konijn/MPEG7.html>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, N 1733, MPEG97, Stockholm - July 1997, MPEG-7: Context and Objectives (V.4-Stockholm), <http://rtlab.kaist.ac.kr/~gunhan/MPEG7/mpeg7v4.html>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, N1735, MPEG97, July 1997/Stockholm, MPEG-7 Applications Document, <http://rtlab.kaist.ac.kr/~gunhan/MPEG7/mpeg7app.html>.

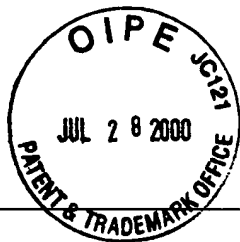
Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11/MPEG 97/N1734, July 1997/Stockholm, Second Draft of MPEG-7 Requirements, <http://rtlab.kaist.ac.kr/~gunhan/MPEG7/mpeg7req.html>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, N2460, MPEG98, October 1998/Atlantic City, USA/MPEG-7: Context and Objectives (version - 10 Atlantic City), <http://drogo.cselt.stet.it/mpeg/standards/mpeg-7/mpeg-7.htm>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, MPEG98/N2466, MPEG98/October 1998, Atlantic City, USA, Licensing Agreement for the MPEG-7 Content Set, <http://drogo.cselt.stet.it/mpeg/public/w2466.html>.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 42 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11/N2467, MPEG98, October 1998/Atlantic City, USA, Description of MPEG-7 Content Set, <http://drogo.cselt.stet.it/mpeg/public/w2467.html>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11/N2468, MPEG98/ October 1998, Atlantic City, USA, Distribution of MPEG-7 content set, <http://drogo.cselt.stet.it/mpeg/public/w2468.html>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, N2465, MPEG 98/ October 1998/Atlantic City, MPEG-7 Test & Evaluation AHG Meeting, <http://drogo.cselt.stet.it/mpeg/public/w2465.html>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, MPEG 98/N2464, October 1998, Atlantic City, USA, MPEG-7 Proposal Package Description (PPD), Requirements Group, <http://drogo.cselt.stet.it/mpeg/public/w2464.html>

Coding of Moving Pictures and Associated Audio, ISO/IEC JTC1/SC29/WG11/N2463, MPEG 98/Atlantic City, MPEG-7 Evaluation Process Document, <http://drogo.cselt.stet.it/mpeg/public/w2463.html>.

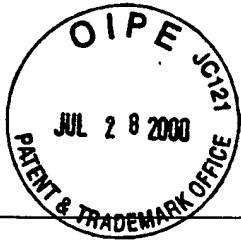
Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, N2469, MPEG 98, October 1998, Atlantic City, USA, Call for Proposals for MPEG-7 Technology, <http://drogo.cselt.stet.it/mpeg/public/w2469.html>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, N2462, MPEG 98, October 1998, Atlantic City, MPEG-7 Applications Document v.7, <http://drogo.cselt.stet.it/mpeg/public/w2462.html>.

Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, N2461, MPEG 98, October 1998, Atlantic City, USA, MPEG-7 Requirements Document V.7, <http://drogo.cselt.stet.it/mpeg/public/w2461.html>.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 43 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

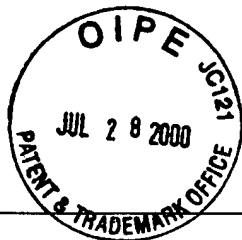
RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
ps		Coding of Moving Pictures and Audio, ISO/IEC JTC1/SC29/WG11, N2460, MPEG 98, October 1998, Atlantic City, USA, MPEG-7:Context and Objectives (version - 10 Atlantic City, http://drogo.cselt.stet.it/mpeg/public/w2460.html .
		Internet Article, TC10 News #56, http://www.inf.enst.fr/~elc/GRCE/news/tc10news56.txt
		Internet Article, Muscle Fish article in IEEE MultiMedia 1996, Vol. 3, No. 3: Fall 1996, pp. 27-36, http://www.musclefish.com/ieeemm96/index.html
		WOLD, ERLING, et al., "Classification, Search, and Retrieval of Audio", CRC Handbook of Multimedia Computing 1999, http://www.musclefish.com/crc/index.html
		BEEFERMAN, DOUG, "QPD: Query by Pitch Dynamics Indexing Tonal Music by Content", http://bobo.link.cs.cmu.edu/dough/qpd/doc/html/qpd.html
		BURKE, ROBIN, et al., "Intelligent Web Search Engines", PC A1 January/February 1997
		JOHNSON, R. COLIN, "Tool kit allows online multimedia in real-time", DESIGN
		BOWEN, TED SMALLEY, "Transarc and Iona team up for object transaction system", SERVER, pages 29 and 30
		SPENCER, HARVEY, "For Front-End/Scanning Economy: A Universally-Readable Document?", Advanced Imaging, page 52-54
		DE JESUS, EDMUND, "Walking, Talking Web", January 1997 Byte 80NA, pages 1, 2, 4
		"Video for Everyone", January 1997 Byte, pages 59 and 60
		"Face Recognition DataBlade Module" from Informix and Excalibur Technologies Corporation
		"Real-Time Profiling DataBlade Module" from Informix and Excalibur Technologies Corporation

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 44 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

py

"SceneChange DataBlade Module" from Informix and Excalibur Technologies Corporation

Brochure about Excalibur Visual RetrievalWare-Transforming Information into Knowledge

MOISAN, SERGE, "Less to ReDo, Less Cost: GrayScale for Document Capture and Recognition", Advanced Imaging, March 1996, pages 55-58

BAINS, SUNNY, "Optical correlator expands into 3-D scenes", Electronic Engineering Times, September 7, 1998, page 57

BURSKY, DAVE, "Improved DSP ICs Eye New Horizons", Electronic Design, November 11, 1993, pages 69-82

NASS, RICHARD, "PC and Consumer Technologies Converge to Form Smart Appliances", Embedded Systems Development, June 1999, pages 24-27

"Defining the Database Battleground-An Interview with Informix Software CTO Mike Stonebraker, CommunicationsWeek, December 16, 1996, pages 15 and 16

"Image Recognition for Web Search & Security", Advanced Imaging, page 9

Press Release from Internet dated November 20, 1996 "Excalibur offers complete suite of DataBlade modules", demers@excalib.com

Press Release from Internet dated November 12, 1996 "Yahoo! First to Offer Internet Image Search Using Excalibur Visual RetrievalWare, <http://www.prnewswire.com>

Press Release from Internet dated November 4, 1996, "Excalibur Technologies Corporation (Nasdaq:EXCA), <http://www.prnewswire.com>

Press Release from Internet dated November 20, 1996, "Excalibur Technologies Corporation (Nasdaq:EXCA), <http://www.prnewswire.com>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 45 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated November 12, 1996, "Keyware Technologies Inc. will introduce the industry's first server, <http://www.prnewswire.com>

Press Release from Internet dated November 12, 1996, "Company Delivers New Products, Intensifies Focus on Eliminating InfoGlut in Large Organizations", <http://www.prnewswire.com>

Press Release from Internet dated November 5, 1996, "Leading Database Vendor Broadens Support for Multimedia Datatypes", <http://www.prnewswire.com>

Press Release from Internet dated January 28, 1997, "Iterated's Technology To Enable the Productions of Video For edd/Electronic Digital Delivery", <http://www.iterated.com>

Press Release from Internet dated January 7, 1997, "Video Delivered Direct to VCRs", <http://www.prnewswire.com>

Press Release from Internet dated January 6, 1997, "Former MCI Chief Technology Officer Will Lead Drive to Implement edd", <http://www.prnewswire.com>

Press Release from Internet dated January 6, 1997, "Breakthrough Time-Space and Space-Compression Technology Delivers Videos", <http://www.prnewswire.com>

Press Release from Internet dated December 10, 1996, "Informix Software, Inc. (NASDAQ: IFMX)

Press Release from Internet dated December 9, 1996, "Company Launches New Object Manager Developer Program", <http://prnewswire.com>

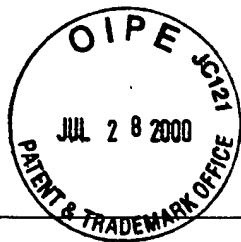
Press Release from Internet dated October 17, 1996, "MOVIE>>ADVANCE (TM), offspring of COMMERCIAL>>ADVANCE(R)", <http://www.prnewswire.com>

Press Release from Internet dated October 28, 1996, "Zilog, Inc. (NYSE:ZLG)

Press Release from Internet dated October 8, 1996, "Autonomy Inc."

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 46 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

Press Release from Internet dated October 23, 1996, "Stephen M. Studdert", <http://www.prnewswire.com>

Press Release from Internet dated October 8, 1996, "High Speed Broadband Online Service to Reach 638,000 Households"

Press Release from Internet dated October 15, 1996, "Gemstar's TV Guide Plus+ system introduced in Magnavox and JVC televisions and VCRs"

Press Release from Internet dated October 14, 1996, "The U.S. home video industry is losing an estimated \$370 million annually"

Press Release from Internet dated December 23, 1996, "Gemstar International Group Limited (NASDAQ:GMSTF) and StarSight Telecast Inc."

Press Release from Internet dated October 3, 1996, "Tyco Toys Inc. (NYSE:TTI) has announced eagerly anticipated video camera for kids"

Press Release from Internet dated October 9, 1996, "MSU Corp (OTC: MUCP) is arranging meetings in New York City"

Press Release from Internet dated September 23, 1996, "Viva Productions Inc. of the Philippines has signed an agreement with Macrovision"

Press Release from Internet dated October 22, 1996, "Products to take advantage of Inherent Flexibility of New Open Standard"

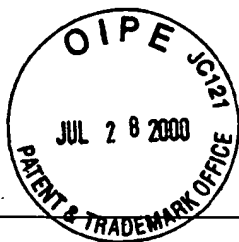
Letter and Brochure from STAR Sight

COMAFORD, CHRISTINE, "User-responsive software must anticipate our needs"; PC Week, May 24, 1993

YOSHIDA, JUNKO, "The video-on-demand demand"; Electronic Engineering Times; March 15, 1993, pages 1 and 72

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 47 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

LU, CARY; "Publish It Electronically"; BYTE, September 1993

BURSKY, DAVE; "Improved DSP ICs Eye New Horizons"; Electronic Design, November 11, 1993; pages 69-82

ANSON, LOUISA F.; "Fractal Image Compression"; BYTE; October 1993; pages 195-202

BAGLEY, HAL and SLOAN, JEFF; "In Pursuit of Perfection"; Photonics Spectra; August 1993; pages 101-106

BARAN, NICHOLAS, "Fractal Compression Goes On-Line"; BYTE; September 1993, p.40

COHEN, RAINES; "Full Pixel Search helps users locate graphics"; Macweek; 8/23/93

COMAFORD, CHRISTINE; "User-responsive software must anticipate our needs"; PC Week; May 24, 1993

BAINS, SUNNY; "Trained neural network recognizes faces"; Laser Focus World; June 1993; pages 26 and 28

SHEPARD, JEFFREY D.; "Tapping the potential of data compression"; Military & Aerospace Electronics; May 17, 1993; pages 25-28

"Image Compression Using Fractals and Wavelets"; Final Report for the Phase II Contract Sponsored by the Office of Naval Research, Contract No. N00014-91-C-0117; June 2, 1993

"Emerging, Public, High-Tech Company Chooses Area as New Corp. HQ", Spotlight on Excalibur Technologies; Golden Triangle Business Week, pages 2 and 3

Netrologic Inc. Brochure

Thesis of Linda I. Hoffberg; "Designing a Programmable Interface for a Video Cassette Recorder (VCR) to Meet the User's Needs"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 48 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

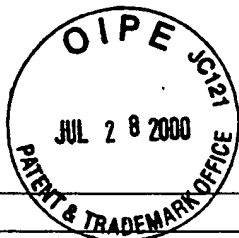
Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		Thesis of Linda I. Hoffberg "Designing User Interface Guidelines for Time-Shift Programming on a Video Cassette Recorder (VCR)"
		YOSHIDA, JUNKO, ET AL., "Video, games, CDs, converge at CES"; Electronic Engineering Times; January 11, 1993; Issue 728; pages 1 and 8
		ROONEY, PAULA; "New Word for Windows to tap 'smart' features"; PCWeek, March 22, 1993, Volume 10, Number 11; pages 1 and 14
		COSTLOW, TERRY; "IBM points a new way"; Design
		CARTER, ROBERT; "The Business of Technology"; Electronic Engineering Times; April 20, 1992; page 22
		ROBERTS, JOHNNIE, ET AL.; "Smart Sets - Age of Interactive TV may be nearing as IBM and Warner Talk Deal"; The Wall Street Journal; May 21, 1992; Vol.CCXIX No. 100
		BRYANT, ADAM; "For the Lowly Radio, New Tricks are in Store"; The New York Times, February 17, 1993
		KOLBERT, ELIZABETH; "With 500 Channels, How Could Anyone Learn What's On?"
		"Optical Computer 'Recognizes' Images in Femtoseconds"; Photonics Spectra, page 28
		"Technique Compresses Images 100:1"; Photonics Spectra, pages 38 and 40
		BOVE, MICHAEL; "What's Wrong with Today's Video Coding?"; TV Technology, February 1995
		BOVE, MICHAEL; "Object-Oriented Television" paper submitted to SMPTE Journal, 3/95
		BECKER, SHAWN, ET AL.; "Semiautomatic 3-D model extraction from uncalibrated 2-D camera views"; Proc. SPIE Image Syntheses, February 1995

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 49 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

CHALOM, EDMOND, ET AL.; "Segmentation of frames in a video sequence using motion and other attributes"; Proc. SPIE Digital Video Compression: Algorithms and Technologies, February 1995

BOWEN, TED SMALLEY, "Web searches to gain smart user interface"; Info World

SMITH, JOHN, ET AL.; "VisualSEEk: a fully automated content-based image query system"; Dept. of Electrical Engineering and Center for Image Technology for New Media, Columbia University, New York, NY 10027

ATI-TV TV Tuner and video input card for AMC enabled graphics including VIDEO XPRESSION and 3D XPRESSION

WANG, JAMES Z., "Content Based Image Search Demo Page"

NELSON, LEE J., "Commercializing Face Recognition: How to Judge Fresh Players & Approaches", Advanced Imaging, page 86

KITA, YASUYO, "Elastic-Model Driven Analysis of Several Views of a Deformable Cylindrical Object", IEEE PAMI - Abstracts 1996

WEINSHALL, DAPHNA, ET AL., "On View Likelihood and Stability", IEEE PAMI: Abstracts - February 1997

NYGREN, E., ET AL., "The Art of the Obvious" CHI '92, May 3-7, 1992, pages 235-239

TEAL, STEVEN L., "A Performance Model of System Delay and User Strategy Selection", CHI '92, May 3-7, 1992, pages 295-305

ADL '96 "A Forum on Research and Technology Advances in Digital Libraries", Sponsors: NASA Goddard Space Flight Center, National Library of Medicine, The IEEE Computer Society and The Library of Congress

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 50 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

QUINNELL, RICHARD A., "Image Compression Part 3", EDN, May 13, 1993, pages 114-120

"Bluetooth Specification Emerges As Designers Prep New Products", Wireless Systems Design, September 1999, pages 8-10

"Intelligent Human Machine Interface Considering Interactive Adaptation", Fukudu Labs, http://www.mein.nagona-u.ac.jp/activity/Interactive_Adaption-e.html, 9/19/96

GOLDEN, DANIEL, "The Face of the Future", Boston Globe, June 30, 1996

KAHNEY, LEANDER, "Avian updates image searcher", MacWeek, 8/19/96

FOX, JEFFREY A, ET AL., "Dynamic Rules for User Interface Design" M89-22, May 1989

SMITH, SIDNEY, ET AL., "Guidelines for Designing User Interface Software" MITRE, ESD-TR-86-278, MTR 10090, August 1986

ERICKSON, THOMAS, ET AL., "Designing a Desktop Information System: Observations and Issues", Human Interface, Advanced Technology Group, Apple Computer, CHI Proceedings '91

UEDA, ET AL., "Impact: An Interactive Natural-Motion-Picture Dedicated Multimedia Authoring System, Central Research Laboratory, Hitachi, Ltd., CHI Proceedings '91

CYPER, ALLEN, "Eager: Programming Repetitive Tasks by Example", Advanced Technology Group, Apple Computer, CHI Proceedings '91

SIOCHI, ET AL., "A Study of Computer-Supported User Interface Evaluation Using Maximal Repeating Pattern Analysis", Dept. of Physics & Computer Science, Christopher Newport College and Dept. of Computer Science, Virginia Tech, CHI Proceedings '91

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 51 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

CYPHER, ALLEN, "Video Presentation Eager: Programming Repetitive Tasks by Example", Advanced Technology Group, Apple Computer, CHI Proceedings '91

ICPR'96 Scientific Program, Conference Topics and References

Technology Newsletter, Electronic Design/September 3, 1996

"Retrieving Semantically Distant Analogies", KSL-94-46

"GK Intelligent Systems - Business Summary"

"Adaptive Intelligent Tutoring"

IEEE PAMI Table of Contents - December 1996

IEEE PAMI Table of Contents - January 1997

IEEE PAMI Table of Contents - February 1997

IEEE PAMI Abstracts - February 1997

IEEE PAMI Abstracts 1996

IEEE Transaction on Pattern Analysis and Machine Intelligence Past issues Table of Contents

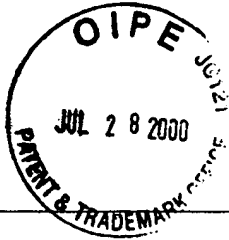
BECKER, SHAWN, ET AL., "Semiautomatic 3-D model extraction from uncalibrated 2-D camera views, MIT Media Laboratory

CHALOM, EDMOND, ET AL., "Segmentation of frames in a video sequence using motion and other attributes", MIT Media Laboratory

BOWEN, TED SMALLEY, "Web searches to gain smart user interface", InfoWorld

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 52 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

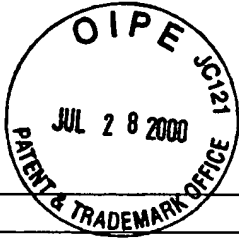
Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		SCHRODER, ERICA, "Digital cameras come into focus"
		SHAPIRO, LINDA, ET AL., "Efficient Content-Based Image Retrieval", Dept. of Computer Science and Engineering, University of Washington, http://www.cs.columbia.edu/~klavans/Activities/98-IDM-Workshop/participant.../aberman.htm 9/17/99
		ALBA-FLORES, ROCIO, ET AL., "Content-based Search Prototype for Image Databases", http://computer.org/conferen/proceed/meta/1999/papers/44/ralba.html
		ADALIAN, JOSEF, "Microsoft turned on by TV biz"
		BURKE, DAN, "GomezWire: Online brokers shut out WebTV", http://www.zdii.com
		"Gates Wows the Audience with CES Keynote", The Andover News Network, http://www.andovernews.com/egi-bin/news_story.pl2107167/topstories 1/12/00
		"Cisco Develops "Always On" Home Networks", The Andover News Network, http://www.andovernews.com/egi-bin/news_story.pl2107183/topstories 1/12/00
		"WebTV Personal TV service gives you ultimate control over what you watch and when you watch it", http://www.webtv.net/products/satellite/ptv.html
		HOFFBERG, LINDA, "Designing a Programmable Interface for a Video Cassette Recorder (VCR) to Meet the User's Needs"
		HOFFBERG, LINDA, "Designing User Interface Guidelines for Time-Shift Programming on a Video Cassette Recorder (VCR)"
		Adobe Ventures Portfolio, Digimarc Corporation, http://www.adobe.com/aboutadobe/adobeventures/Digimarc.htm
		Adobe Ventures Portfolio, Virage Inc., http://www.adobe.com/aboutadobe/adobeventures/Virage.htm

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

RECEIVED
AUG 1 2000
Group 2700

Sheet 53 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

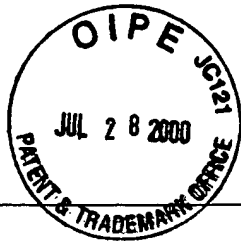


OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		OAKES, CHRIS, "FasTV Hopes for a Fast Start", http://www.wired.com/news/news/technology/story/17537.html
		"The Daily Double - A review of a company whose stock price has doubled within the last year", Gemstar International Group, http://fnews.yahoo.com/fool/98/09/03/double_980903
		"edd Core Technology - Time & Space Compression", http://emc3.com/edd/ov01.html
		"Iterated Systems and Emc ³ sign digital video deal", http://www.emc3.com/news/plugged_in_sum97/iterated.html
		"edd Canada gets CRTC approval", http://www.emc3.com/news/plugged_in_sum97/index.html
		Corporate Info, http://www.emc3.com/corporate/offices.html
		William A. Graven bio, http://emc3/corporate/officers/graven.html
		Virage article, http://www.virage.com/
		Excalibur Technologies article, http://www.excalib.com/home2.html
		Rames Jain biography
		David Salesin biography
		"Bulldog provides content management application for Sun's storedge media central software platform", http://www.bulldog.com/press/press_release/PressRelease14.html
		"Fox Digital selects Bulldog as enterprise content management solution to increase production efficiencies and reduce media distribution costs", http://www.bulldog.com/press/press_release/PressRelease15.html

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 54 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

"Open...successfully completes first phase of production with Bulldog's leading content management solution", http://www.bulldog.com/press/press_release/PressRelease17.html

"The Bulldog Group, Inc. - About the Company", <http://www.bulldog.com/AboutTheCompany.html>

"Bulldog at Work", <http://www.bulldog.com/BulldogAtWork.html>

"Bulldog Personalities", <http://www.bulldog.com/BulldogPersonalities.html>

Internet Articles re "Muscle Fish", <http://www.musclefish.com>

Internet Article, <http://mambo.ucsc.edu/pst/ccrmas/199605/19960522.html>

"Bookmarks for Ben Schouten", <http://www.swi.nl/ftp/bens/mdb/book4.html>

"Comparisonics", <http://www.comparisonics.com/>

"Comparisonics Corporation", <http://www.comparisonics.com/corp.html>

"Comparisonics - Searching Audio and Video by Sound", <http://www.comparisonics.com/search.html>

"Comparisonics - Applications of Comparisonics", <http://www.comparisonics.com/apps.html>

"Comparisonics - Find Audio and Video! See the Audio!", <http://www.comparisonics.com/WhitePaper.html>

"Graham-Patten Launches Comparisonics^{&trade} Sound Matching Software", <http://www.gpsys.com/pr0406984.html>

"The Comparisonics API Version 2.0", <http://www.comparisonics.com/api.html>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 55 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		"CS_create-sample_processor", http://www.comparisonics.com/api_csp.html
		"CS_process_sample", http://www.comparisonics.com/api_ps.html
		"CS_get_signature", http://www.comparisonics.com/api_gs.html
		"CS_destroy_sample_processor", http://www.comparisonics.com/api_dsp.html
		"CS_compare_signatures", http://www.comparisonics.com/api_cs.html
		"CS_get_color", http://www.comparisonics.com/api_gc.html
		"Comparisonics - Visualizing Audio by Coloring the Audio Waveform Display", http://www.comparisonics.com/color.html
		"Stephen V. Rice", http://www.isri.unlv.edu/~rice/
		BONEY, LAURENCE, ET AL., "Digital Watermarks for Audio Signals"
		BONEY, LAURENCE, ET AL., "Digital Watermarks for Audio Signals", Dept. of Electrical Engineering, University of Minnesota
		RUI, YONG, ET AL., "A Relevance Feedback Architecture for Content-based Multimedia Information Retrieval Systems", University of Illinois at Urbana-Champaign
		SWANSON, MITCHELL, ET AL., "Coding for Content-based Retrieval"
		BASSIA, P., ET AL., "Robust audio watermarking in the time domain"
		SU, JONATHAN, ET AL., "A Channel Model for a Watermark Attack"
		ARNOLD, MICHAEL, ET AL., "MP3 robust Audio Watermarking"
		GAUTAMA, S., ET AL., "Context Driven Matching in Structural Pattern Recognition"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 56 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

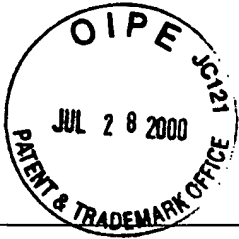
RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		SAWHNEY, NITIN, ET AL., "Nomadic Radio: Scaleable and Contextual Notification for Wearable Audio Messaging"
		International Organisation for Standardisation Organisation Internationale de Normalisation, ISO/IEC JTC1/SC29/WG11, MPEG97/2290, July 1997
		VELLAIKAL, ASHA, ET AL., "Content-Based Image Retrieval Using Multiresolution Histogram Representation"
		SEALES, ET AL., "Content Analysis of Compressed Video"
		GAUTAMA, S., ET AL., "Context Driven Matching in Structural Pattern Recognition"
		HARTUNG, FRANK, ET AL., "Spread Spectrum Watermarking: Malicious Attacks and Counterattacks"
		"Audio Advertisement Recognition", http://www.signallogic.com/ad_recog.htm
		"CUIDAD Working Group MIDEM/99", http://www.ircam.fr/produits/techno/multimedia/ Cuidad/MIDEM_Prese.../MIDEM_Puig.htm
		"Audio Feature Extraction & Analysis for Scene Classification", http://vision.poly.edu: 8080/paper/audio-mmshp.html
		"CUIDAD Working Group - Mars/02/99"
		YLI-HARJA, OLLI, ET AL., "Graph-based Smoothing of Class Data with Applications in Musical Key Finding"
		"Machine recognition and classification of musical patterns", http://www.es.tut.fi/~ilya/ MPR.htm
		SHMULEVICH, ILYA, ET AL., "The use of recursive median filters for establishing the tonal context in music"

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 57 of 62



Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

SHMULEVICH, ILYA, ET AL., "Rhythm complexity measures for music pattern recognition"

"Music, Mind, Machine", Smartunes\Music Mind Machine_files\dh-95-c.htm

"Content based recognition in compressed domain", <http://www.dcs.uky.edu/~yuan/compress.html>

CALLAGHAN, SARAH, "Neural Networks and Musical Style Recognition", <http://www.geocities.com/CapeCanaveral/2125/project.html>

CRUZ-ALCAZAR, PEDRO, ET AL., "A study of grammatical inference algorithms in automatic music composition and musical style recognition", <http://gubbio.cs.berkeley.edu/mlpapers/showpaper.doit?60b17c7e42b0a9171386dcc1d260cf48>

GASSNER, MICHAEL, ET AL., "Meter as mechanism: A neural network that learns metrical patterns", <http://gubbio.cs.berkeley.edu/mlpapers/showpaper.doit?3ca24b5d95c2a363c39228a1a8795ea1>

"Artificial perception and music recognition (Lecture notes in artificial intelligence, Vol. 746)", <http://www.briansbooks.com/catalog/books/0387573941>

"The Audio Research Group", <http://www.dcs.gla.ac.uk/~arg/>

BEEFERMAN, DOUG, "QPD: Query by Pitch Dynamics Indexing tonal music by content", <http://www.link.cs.cmu.edu/qpd/doc/html/>

PACHET, FRANCOIS, ET AL., "A Combinatorial Approach to Content-Based Music Selection", <http://computer.org/conferen/proceed/icmcs/0253/Volume%201/02539457abs.htm>

LIU, CHIH-CHIN, ET AL., "An approximate string matching algorithm for content-based music data retrieval", <http://computer.org/conferen/proceed/icmcs/0253/Volume%201/02539451abs.htm>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 58 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
'AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

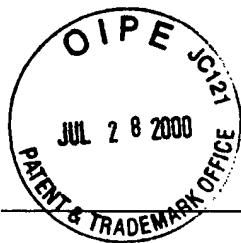
Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		UITDENBOGERD, ALEXANDRA, ET AL., "Manipulation of music for melody matching" ACM Multimedia 98 - Electronic Proceedings, http://www.kom.e-technik.tu-darmstadt.de/pr/workshop/chair/ACMMM98/electr.../index.htm
		ROBERTSON, JOHN, ET AL., "Automatic speech recognition for generalised time based media retrieval and indexing", ACM Multimedia 98 - Electronic Proceedings, http://info.acm.org/sigmm/MM98/electronic_proceedings/robertson/index.html
		BLACKBURN, STEVEN, ET AL., "A Tool for content based navigation of music", ACM Multimedia 98 - Electronic Proceedings, http://info.acm.org/sigmm/MM98/electronic_proceedings/blackburn/index.html
		SHMULEVICH, ILYA, ET AL., "Perceptual Issues in Music Pattern Recognition - Complexity of Rhythm and Key Finding"
		COYLE, EDWARD, "A system for machine recognition of music patterns"
		MORONY, MIKE, "Audio Processing to Indexing and Retrieval of Arbitrary TV Video Data"
		"New book on computer music, music cognition and AI", http://landfield.com/faqs/music/midi/bibliography.section-1.html
		"Visitors to Haskins Laboratories Peter Desain and Henkjan Honing", http://www.haskins.yale.edu/haskings/misc/visitors/beat.html
		"Content-based classification and retrieval of Audio using the nearest feature line method: experimental results", http://markov.eee.ntu.edu.sg:8000/demos/audio/experiments/audio.html
		"Music Sketcher Section Details", http://www.research.ibm.com/mathsci/emc/tutorial/details.htm
		"What is Akoff Music Compser?", http://akoff.hypermart.net/more.html

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 59 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

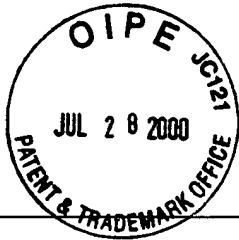
Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		"MOODS - Technical Description", http://www.des.uky.edu/~moods/
		"MOODS: A Popular Description", http://www.des.uky.edu/~moods/moods_popular.html
		IEEE workshop on content-based access of image and video libraries (In conjunction with CVPR'97) June 20, 1997
		SMITH, BRIAN, "A survey of compressed domain processing techniques", http://www.uky.edu/~kiernan/DL/bsmith.html
		IEEE workshop on content-based access of image and video libraries (In conjunction with IEEE CVPR-2000) June 12, 2000, http://disney.ctr.columbia.edu/cbaivl/
		GRIFFIOEN, JAMES, ET AL., "Content-based multimedia data management and efficient remote access", http://www.uky.edu/~kiernan/DL/brent.html
		EAKINS, JOHN, ET AL., "Content-based image retrieval", http://www.jtap.ac.uk/reports/hm/jtap--039.html
		CHANG, SHIH-FU, ET AL., "VideoQ: an automated content based video search system using visual cues", http://www.uni-mannheim.de/acm97/papers/sundaram/acmMM97paper.html
		HUANG, JING, "Content-based Video Parsing and Querying", http://www.cs.cornell.edu/Info/People/kettmake/cs631/Project/proposal.html
		CHANG, SHIH-FU, ET AL., "Finding Images/Video from large distributed information sources Columbia's content-based visual query project", http://www.cs.pitt.edu/~panos/idm98/Imported/sfchang.html
		LEBOURGEOIS, FRANK, ET AL., "Towards a description for video indexation", http://rfv17.insa-lyon.fr

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 60 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

RECEIVED
AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		THIEL, ULRICH, ET AL., "Beyond similarity searching: concept-based video retrieval and Browsing", http://www.darmstadt.gmd.de/~evens/delos99/
		Technical Program ACM MM98, http://info.acm.org/sigmm/MM98/program.html
		WOOD, MATTHEW, ET AL., "Iterative refinement by relevance feedback in content-based digital image retrieval" ACM Multimedia 98 - Electronic Proceedings, http://info.acm.org/sigmm/MM98/electronic_proceedings/wood/index.html
		KANKANHALLI, MOHAN, ET AL., "Content based watermarking of images" ACM Multimedia 98 - Electronic Proceedings, http://info.acm.org/sigmm/MM98/electronic_Proceedings/kankanhalli/index.html
		Chapter 7. Digital Library: content-based retrieval, http://www.cs.sfu.ca/CC/365/li/material/notes.Chap7/Chap7.html
		BOUET, MARINETTE, ET AL., "Powerful image organization in visual retrieval systems" ACM Multimedia 98 - Electronic Proceedings, http://info.acm.org/sigmm/MM98/electronic_proceedings/bouet/index.html
		CHA, GUANG-HO, ET AL., "Object-oriented retrieval mechanism for semistructured image collections", http://info.acm.org/sigmm/MM98/electronic_proceedings/cha/index.html
		DELIS, VASILIS, "Assessing Multimedia Similarity: A Framework for Structure and Motion", http://info.acm.org/sigmm/MM98/electronic_proceedings/delis/index.html
		FOOTE, JONATHAN, ET AL., "An intelligent media browser using automatic multimodal analysis", http://info.acm.org/sigmm/MM98/electronic_proceedings/foote/index.html
		DOBIE, MARK, ET AL., "A flexible architecture for content and concept based multimedia information exploration", http://www.mmrg.ecs.soton.ac.uk/publications/archive/dobie1999/html/

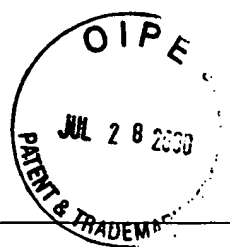


INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 61 of 62

Application Number : 09/260,802
Filing Date : 3/2/99
First Named Inventor : Hoffberg
Group Art Unit : 2741
Examiner Name :
Attorney Docket No. : 3459-11

FILED
AUG 1 2000
Group 2700



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner
Initials

Cite
No

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published

WILKINS, R.J., ET AL., "The MAVIS project-extending generic links and content based retrieval to non-textual documents in the Microcosm model", <http://www.ecs.soton.ac.uk/publications/rj/1994.im/griffith/resjorn.html>

"A signature for content-based image retrieval using a geometrical transform", http://info.acm.org/sigmm/MM98/electronic_proceedings/wang.index.html

VIEIRA, MARINA, ET AL., "Metadata for content-based search on an MHEG-5 multimedia objects server", <http://computer.org/conferen/proceed/meta/1999/papers/32/MViera.html>

"LBSC 878 information storage and retrieval, Spring 1999, Bibliography: retrieval from collections of video recordings", <http://www.wam.umd.edu/~wpuntai/video/VdoBiblio.htm>

"Attrasoft Neural Network Application Software", <http://attrasoft.com/>

"Attrasoft Neural Network Application Software", <http://attrasoft.com/image/Help35.html>

"Content based recognition in compressed domain papers", Content Analysis of Compressed Video, August 1996

LI, ZE-NIAN, ET AL., "C-BIRD: content-based image retrieval from digital libraries using illumination invariance and recognition kernel"

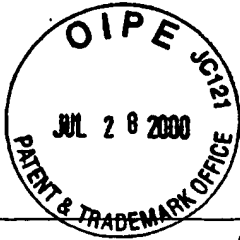
9th International Workshop on Database and Expert Systems Applications, August 26-28, 1998 Vienna, Austria, <http://computer.org.proceedings.dexa/8353/8353toc.htm>

"Oracle8 Visual Information Retrieval Cartridge User's Guide Release 1.0.1", http://www.sch.bme.hu/misc/oracle8/cartridg/a55255/vir_cbr.htm

MA, WEI-YING, ET AL., "NETRA: A content-based image retrieval system", <http://vivaldi.ece.ucsb.edu/users/wei.codebase/example.html>

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 62 of 62



Application Number : 09/260,802

Filing Date : 3/2/99

First Named Inventor : Hoffberg

Group Art Unit : 2741

Examiner Name :

Attorney Docket No. : 3459-11

RECEIVED

AUG 11 2000

Group 2700

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published
		ROBERTSON, JOHN, ET AL., "Automatic speech recognition for generalised time based media retrieval and indexing", ACM Multimedia 98 - Electronic Proceedings, http://info.acm.org/sigmm/MM98/electronic_proceedings/robertson.index.html
		SCHWEITZER, HAIM, "Computational limitations of model based recognition" http://www.utd.edu/~haim/publications/html/modelnpc.html
		OZCAN, FATMA, "Comparison of content based image retrieval systems", http://www.cs.umd.edu/~fatma/abstract.html
		BROWN, MARTIN, ET AL., "Automatic content-based retrieval of broadcast news", http://svr-www.eng.cam.ac.uk/Research/Projects/vmr/mm95.html
		WANG, H., ET AL., "A signature for content-based image retrieval using a geometrical transform", http://info.acm.org/sigmm/MM98/electronic_proceedings/wang/index.html
		CHANG, SHIH-FU, ET AL., "VideoQ: an automated content based video search system using visual cues", http://info.acm.org/sigmm/MM97/papers/sundaram/acmMM97paper.html
		"Create, Edit, Tag, Multimedia Scenes", The Sarnoff Multimedia Composition and Authoring Toolkit
		VLBV98 Workshop Schedule, http://www.ifp.uiuc.edu/vlbv98/schedule.html
		"Detailed algorithm", http://info.acm.org/sigmm/MM98/electronic_proceedings/nastar/node8.html

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 1 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
24	3609684	Lipp, James P.	9/28/71	4/27/70	340/146.3C
	3849760	Endou et al.	11/19/74	7/11/72	340/146.3H
	3928719	Sasabe et al.	12/23/75	3/23/73	178/6.8
	3967241	Kawa	6/29/76	12/28/73	340/146.3H
	3993976	Ginsburg, Arthur P.	11/23/76	5/13/74	340/146.3P
	4025851	Haselwood, Donald E., et al.	5/24/77	11/28/75	325/031
	4100370	Suzuki, Matsumi, et al.	7/11/78	12/13/76	179/001.SB
	4117511	Baer et al.	9/26/78	7/21/77	358/83
	4118730	Lemelson, Jerome H.	10/3/78	5/18/72	358/093
	4148061	Lemelson, Jerome H.	4/3/79	3/16/77	358/101
	4203076	Yamashita	5/13/80	8/29/77	331/25
	4208652	Marshall	6/17/80	9/14/78	340/146.3Y
	4213183	Barron, Roger L., et al.	7/15/80	3/22/79	364/507
	4225850	Chang, Tien-Lin, et al.	9/30/80	11/15/78	340/146.3E
	4228421	Asada	10/14/80	3/22/79	340/146.3MA
	4230990	Lert, Jr., John G., et al.	10/28/80	3/16/79	455/067
	4244043	Fujita et al.	1/6/81	3/29/79	368/85
	4245245	Matsumoto, Katsuaki, et al.	1/13/81	2/2/76	358/122
	4264924	Freeman, Michael J.	4/28/81	8/13/79	358/086
	4264925	Freeman, Michael J., et al.	4/28/81	8/13/79	358/086
Y	4298889	Burianek et al.	11/3/81	3/5/80	358/148

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

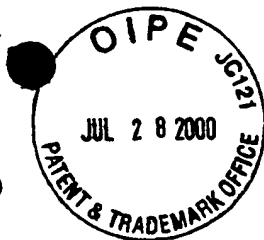
Examiner:

G.A.U.: 2741

Page 2 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
24	4305131	Best, Robert M.	12/8/81	3/31/80	364/521
	4331974	Cogswell, Ned W., et al.	5/25/82	10/21/80	358/086
	4337529	Morokawa	6/29/82	5/12/79	368/10
	4338626	Lemelson, Jerome H.	7/6/82	2/16/79	358/093
	4346407	Baer et al.	8/24/82	6/16/80	358/149
	4390904	Johnston, Howard R., et al.	6/28/83	9/20/79	358/335
	4395780	Gohm, Lothar, et al.	7/26/83	6/18/81	455/607
	4417246	Agnor et al.	11/22/83	11/5/80	340/825.44
	4420769	Novak, Albert P.	12/13/83	3/22/78	358/139
	4439788	Frame	3/27/84	1/27/82	358/213
	4450531	Kenyon, Stephen C., et al.	5/22/84	9/10/82	364/604
	4451825	Hall et al.	5/29/84	12/9/82	340/750
	4476584	Dages	10/9/84	2/8/79	455/182
	4486832	Haubner et al.	12/4/84	8/21/81	364/200
	4499601	Matthews, Gordon H.	2/12/85	10/18/82	455/166
	4506301	Kingsley et al.	3/19/85	10/12/79	358/280
	4511918	Lemelson, Jerome H.	4/16/85	7/2/82	358/107
	4519086	Hull et al.	5/21/85	6/16/82	375/120
	4535453	Rhodes et al.	8/13/85	12/27/82	370/110.1
	4546382	McKenna, William J., et al.	10/8/85	12/8/83	358/084
✓	4546387	Glaab	10/8/85	11/4/82	358/186



Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))

Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 3 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
PH	4547899	Nally et al.	10/15/85	9/30/82	382/7
	4558464	O'Brien, Jr.	12/10/85	7/22/85	455/4
	4573072	Freeman	2/25/86	3/21/84	358/08
	4575755	Schoeneberger et al.	3/11/86	12/14/82	358/120
	4581762	Lapidus et al.	4/8/86	1/19/84	382/22
	4593367	Slack, Thomas B.	6/3/86	1/16/84	364/513
	4602279	Freeman	7/22/86	3/21/84	358/86
	4603349	Robbins	7/29/86	12/4/84	358/86
	4621285	Schilling et al.	11/4/86	12/10/80	358/120
	4646250	Childress, John F.	2/24/87	10/18/84	364/518
	4653109	Lemelson, Jerome H., et al.	3/24/87	7/30/84	382/034
	4658370	Erman, et al.	4/14/87	6/7/84	395/76
	4658429	Orita et al.	4/14/87	12/31/84	382/36
	4672683	Matsueda, Akira	6/9/87	3/19/85	382/057
	4677466	Lert, Jr., John G., et al.	6/30/87	7/29/85	358/084
	4682365	Orita et al.	7/21/87	6/7/85	382/14
	4695975	Bedrij	9/22/87	10/23/84	395/147
	4697209	Kiewit, David A., et al.	9/29/87	4/26/84	358/084
	4706121	Young	11/10/87	5/6/86	358/142
	4716404	Tabata, Kuniaki, et al.	12/29/87	3/29/84	340/723
✓	4739398	Thomas, William L., et al.	4/19/88	5/2/86	358/084

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

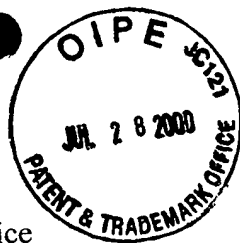
Page 4 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
py	4745549	Hashimoto	5/17/88	6/6/86	364/402
	4747148	Watanabe et al.	5/24/88	4/9/84	382/10
	4752890	Natarajan et al.	6/21/88	7/14/86	364/513
	4760604	Cooper, Leon N., et al.	7/26/88	9/12/85	382/015
	4764973	O'Hair, Mark A.	8/16/88	5/28/86	382/014
	4769697	Gilley, Donald L.	9/6/88	12/17/86	358/084
	4771467	Catros et al.	9/13/88	12/3/86	382/6
	4773024	Faggin, et al.	9/20/88	6/3/86	395/20
	4774677	Buckley, Bruce S.	9/27/88	9/24/86	364/513
	4775935	Yourick, Denise A.	10/4/88	9/22/86	364/401
	4780759	Matsushima et al.	10/25/88	9/29/86	358/148
	4783741	Mitterauer	11/8/88	8/8/84	364/413.01
	4783752	Kaplan, et al.	11/8/88	3/6/86	395/64
	4783754	Bauck, Jerald L., et al.	11/8/88	7/2/84	364/513.5
	4783829	Miyakawa et al.	11/8/88	2/22/84	382/22
	4789933	Chen, Victor C., et al.	12/6/88	2/27/87	364/413.13
	4799270	Kim et al.	1/17/89	3/20/86	382/27
	4802103	Faggin, et al.	1/31/89	6/3/86	395/24
	4802230	Horowitz	1/31/89	3/13/87	382/22
	4803736	Grossberg, Stephen, et al.	2/7/89	7/23/87	382/022
✓	4805224	Koezuka et al.	2/14/89	2/27/87	382/8

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 5 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
24	4805225	Clark, David M.	2/14/89	11/6/86	382/015
	4809331	Holmes, John N.	2/28/89	11/7/86	381/041
	4817171	Stentiford	3/28/89	4/9/85	382/19
	4817176	Marshall, William W., et al.	3/28/89	2/14/86	382/043
	4829453	Katsuta, Yuji, et al.	5/9/89	3/5/87	364/521
	4831659	Miyaoka et al.	5/16/89	6/7/88	382/56
	4837842	Holt	6/6/89	9/19/86	382/26
	4841575	Welsh et al.	6/20/89	11/14/86	381/036
	4843562	Kenyon, Stephen C., et al.	6/27/89	6/24/87	364/487
	4843631	Steinpichler, Dietmar, et al.	6/27/89	8/13/87	382/043
	4845610	Parvin	7/4/89	3/13/87	364/200
	4847698	Freeman	7/11/89	7/16/87	358/343
	4847699	Freeman	7/11/89	7/16/87	358/343
	4847700	Freeman	7/11/89	7/16/87	358/343
	4862015	Grandfield	8/29/89	3/3/88	307/270
	4876731	Loris, Keith, et al.	10/24/89	2/19/88	382/040
	4878179	Larsen et al.	10/31/89	11/12/87	364/490
	4881270	Knecht, John A., et al.	11/14/89	10/28/83	382/017
	4884217	Skeirik, et al.	11/28/89	9/30/87	395/66
	4887304	Terzian	12/12/89	3/16/89	382/30
U	4888814	Yamaguchi et al.	12/19/89	2/23/89	382/21

**Form PTO-1449 (modified)**

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))

Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 6 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
<i>AB</i>	4891762	Chotiros	1/2/90	2/9/88	364/456
	4893346	Bishop	1/9/90	9/2/87	382/8
	4894734	Fischler et al.	1/16/90	5/15/87	360/51
	4902986	Lesmeister	2/20/90	1/30/89	331/25
	4905162	Hartzband et al.	2/27/90	3/30/87	364/513
	4905163	Garber et al.	2/27/90	10/3/88	364/513
	4905286	Sedgwick, Nigel C., et al.	2/27/90	4/1/87	381/043
	4906940	Greene et al.	3/6/90	2/13/89	382/16
	4908713	Levine	3/13/90	6/29/88	358/335
	4908758	Sanders, Michael J.	3/13/90	12/17/87	364/300
	4912433	Motegi et al.	3/27/90	5/16/89	331/8
	4912648	Tyler	3/27/90	3/25/88	364/513
	4914708	Carpenter et al.	4/3/90	6/19/87	382/14
	4918516	Freeman	4/17/90	10/26/87	358/086
	4920499	Skeirik	4/24/90	9/30/87	395/12
	4930160	Vogel, Peter S.	5/29/90	8/29/88	380/023
	4931926	Tanaka, et al.	6/5/90	4/5/89	364/419
	4931985	Glaize et al.	6/5/90	3/21/88	364/900
	4941193	Barnsley et al.	7/10/90	10/2/87	382/56
	4944023	Imao, Kaoru, et al.	7/24/90	5/18/88	382/037
<i>V</i>	4949187	Cohen, Jason M.	8/14/90	12/16/88	358/335

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 1 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
py	4954824	Yamada et al.	9/4/90	9/15/88	341/61
	4956870	Hara	9/11/90	11/28/89	382/30
	4958220	Alessi et al.	9/18/90	12/27/88	358/76
	4958375	Reilly et al.	9/18/90	2/17/88	382/14
	4963994	Levine	10/16/90	2/23/90	358/335
	4964077	Eisen, Ivan R., et al.	10/16/90	10/6/87	364/900
	4965725	Rutenberg	10/23/90	4/8/88	364/413.1
	4967273	Greenberg, Burton	10/30/90	2/14/89	358/142
	4972499	Kurosawa	11/20/90	3/28/89	382/38
	4977455	Young	12/11/90	7/15/88	358/142
	4979222	Weber	12/18/90	2/21/90	382/6
	4982344	Jordan	1/1/91	5/18/88	364/521
	4984255	Davis et al.	1/8/91	11/15/89	375/106
	4987604	Rouch	1/22/91	6/2/89	382/8
	4989256	Buckley, Bruce S.	1/29/91	7/6/88	382/015
	4989258	Takahashi et al.	1/29/91	8/31/88	382/37
	4992940	Dworkin, Ross E.	2/12/91	3/13/89	364/401
	4992972	Brooks et al.	2/12/91	11/18/87	364/900
	4995078	Monslow, H. Vincent, et al.	2/19/91	10/10/89	380/010
	4998286	Tsujiuchi et al.	3/5/91	1/20/88	382/34
V	5012334	Etra, William	4/30/91	1/29/90	358/102

**Form PTO-1449 (modified)**

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))

Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 8 of 29**U.S. Patent Documents**

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
24	5014219	White	5/7/91	5/6/88	364/513
	5014327	Potter et al.	5/7/91	2/16/88	382/14
	5018169	Wong et al.	5/21/91	6/21/89	375/119
	5018218	Peregrim et al.	5/21/91	8/29/88	382/22
	5018219	Matsuzaki et al.	5/21/91	2/6/89	382/37
	5019899	Boles, Glenn M., et al.	5/28/91	11/1/88	358/084
	5020112	Chou	5/28/91	10/31/89	382/37
	5020113	Lo et al.	5/28/91	8/8/88	382/42
	5021976	Wexelblat et al.	6/4/91	11/14/88	364/521
	5022062	Annis	6/4/91	9/13/89	378/86
	5025310	Sekiya et al.	6/18/91	3/23/90	358/19
	5027400	Baji, Toru, et al.	6/25/91	8/16/89	380/020
	5028888	Ray	7/2/91	11/15/89	331/57
	5031224	Mengel et al.	7/9/91	7/8/88	382/10
	5031228	Lu	7/9/91	9/14/88	382/038
	5033101	Sood	7/16/91	6/17/88	382/30
	5034991	Hagimae et al.	7/23/91	4/6/90	382/30
	5038379	Sano	8/6/91	2/9/89	382/1
	5038390	Chandran	8/6/91	6/5/90	382/56
	5040134	Park	8/13/91	5/26/89	364/602
↓	5046113	Hoki	9/3/91	1/12/89	382/8

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

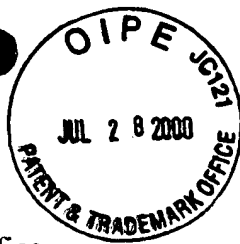
Examiner:

G.A.U.: 2741

Page 9 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
24	5047867	Strubbe, et al.	9/10/91	6/8/89	358/335
	5048095	Bhanu et al.	9/10/91	3/30/90	382/9
	5048100	Kuperstein	9/10/91	12/15/88	382/36
	5051817	Takano	9/24/91	11/16/89	358/22
	5051998	Murai et al.	9/24/91	6/28/89	371/39.1
	5052045	Peregrim et al.	9/24/91	8/29/88	382/30
	5054101	Prakash	10/1/91	2/28/89	382/50
	5058183	Schmidt et al.	10/15/91	4/30/90	382/30
	5058184	Fukushima	10/15/91	1/23/89	382/37
	5060277	Bokser	10/22/91	4/25/88	382/014
	5060278	Fukumizu	10/22/91	5/15/90	382/14
	5063601	Hayduk	11/5/91	9/2/88	382/14
	5063602	Peppers et al.	11/5/91	3/26/91	382/32
	5063603	Burt	11/5/91	11/6/89	382/37
	5065440	Yoshida et al.	11/12/91	8/23/90	382/30
	5065447	Barnsley et al.	11/12/91	7/5/89	382/56
	5067160	Omata et al.	11/19/91	3/24/89	382/1
	5067161	Mikami et al.	11/19/91	8/3/88	382/1
	5067162	Driscoll, Jr. et al.	11/19/91	6/30/86	382/5
	5067164	Denker et al.	11/19/91	11/30/89	382/15
V	5067166	Ito	11/19/91	3/23/90	382/37



Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))

Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 10 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
ps	5068664	Appriou et al.	11/26/91	10/24/90	342/90
	5068723	Dixit et al.	11/26/91	7/24/90	358/133
	5068724	Krause et al.	11/26/91	6/15/90	358/133
	5068744	Ito	11/26/91	9/14/89	358/310
	5075771	Hashimoto	12/24/91	5/7/90	358/084
	5076662	Shih, I-Fu, et al.	12/31/91	4/20/89	359/036
	5089978	Lipner et al.	2/18/92	2/9/90	364/551.01
	5099422	Foresman, R. Scott, et al.	3/24/92	3/17/89	364/401
	5103498	Lanier, Charles D., et al.	4/7/92	8/2/90	395/068
	5109431	Nishiya et al.	4/28/92	5/21/90	382/30
	5111516	Nakano, et al.	5/5/92	4/11/90	382/014
	5115501	Kerr	5/19/92	11/4/88	395/600
	5119475	Smith et al.	6/2/92	8/29/91	395/156
	5119507	Mankovitz, Roy J.	6/2/92	7/29/91	455/154.1
	5122886	Tanaka, Hideo	6/16/92	3/14/90	358/335
	5123046	Levine	6/16/92	11/5/90	380/10
	5123057	Verly et al.	6/16/92	6/21/91	382/037
	5123087	Newell et al.	6/16/92	4/27/90	395/155
	5124908	Broadbent	6/23/92	4/23/90	364/188
	5128525	Stearns et al.	7/7/92	7/31/90	235/454
U	5130792	Tindell, Elbert G., et al.	7/14/92	2/1/90	358/085

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 11 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
24	5132992	Yurt, Paul, et al.	7/21/92	1/7/91	375/122
	5133021	Carpenter et al.	7/21/92	2/28/90	382/15
	5133079	Ballantyne, Douglas J., et al.	7/21/92	8/28/90	455/004.1
	5134719	Mankovitz, Roy J.	7/28/92	2/19/91	455/154.1
	5136659	Kaneko et al.	8/4/92	5/25/90	382/016
	5136696	Beckwith et al.	8/4/92	6/27/88	395/375
	5148497	Pentland, Alex. P., et al.	9/15/92	10/10/91	382/054
	5148522	Okazaki, Akio	9/15/92	2/19/91	395/161
	5151789	Young	9/29/92	10/17/91	358/194.1
	5155591	Wachob, David E.	10/13/92	10/23/89	358/086
	5159474	Franke, et al.	10/27/92	1/18/90	359/029
	5161204	Hutcheson, Timothy L., et al.	11/3/92	6/4/90	382/016
	5168529	Peregrim et al.	12/1/92	8/29/88	382/48
	5173949	Peregrim et al.	12/22/92	8/29/88	382/48
	5177796	Feig, Ephraim, et al.	1/5/93	10/19/90	382/056
	5179652	Rozmanith, A. Martin, et al.	1/12/93	12/13/89	395/155
	5187797	Nielsen et al.	2/16/93	4/5/89	395/800
	5189630	Barstow et al.	2/23/93	1/15/91	364/514
	5192999	Graczyk et al.	3/9/93	4/25/91	358/085
	5200822	Bronfin et al.	4/6/93	4/23/91	358/142
2	5202828	Vertelney, Laurie J., et al.	4/13/93	5/15/91	364/419

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

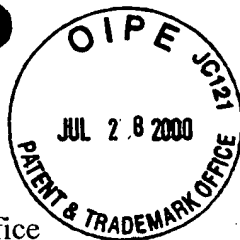
Page 12 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
<i>PS</i>	5214504	Toriu et al.	5/25/93	1/31/91	358/105
	5220420	Hoarty, W. Leo, et al.	6/15/93	9/10/91	358/086
	5220640	Frank	6/15/93	9/20/90	395/2
	5220648	Sato, Minoru	6/15/93	5/25/90	395/146
	5222155	Delanoy et al.	6/22/93	6/15/92	382/30
	5223924	Strubbe	6/29/93	5/27/92	358/086
	5231494	Wachob, David E.	7/27/93	10/8/91	358/146
	5239617	Gardner, David L., et al.	8/24/93	1/5/90	395/012
	5241620	Ruggiero	8/31/93	1/3/91	395/22
	5241645	Cimral et al.	8/31/93	4/27/90	395/500
	5247347	Litteral, Larry A., et al.	9/21/93	9/27/91	358/085
	5247433	Kitaura et al.	9/21/93	3/20/90	364/188
	5247651	Clarisse	9/21/93	4/17/90	395/500
	5253061	Takahama et al.	10/12/93	5/9/91	358/160
	5255386	Prager	10/19/93	2/8/90	395/600
	5259038	Sakou et al.	11/2/93	10/10/90	382/14
	5261081	White et al.	11/9/93	7/26/90	395/550
	5263167	Conner, Jr. et al.	11/16/93	11/22/91	395/700
	5263174	Layman	11/16/93	12/18/92	395/800
	5274714	Hutcheson, Timothy L., et al.	12/28/93	7/23/92	382/015
<i>W</i>	5276737	Micali, Silvio	1/4/94	4/20/92	380/30

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 13 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
22	5280530	Trew et al.	1/18/94	9/5/91	382/1
	5283641	Lemelson, Jerome H.	2/1/94	6/16/93	348/092
	5283819	Glick et al.	2/1/94	4/25/91	379/090
	5291068	Rammel et al.	3/1/94	9/1/92	307/116
	5297204	Levine	3/22/94	12/10/91	380/10
	5297249	Bernstein et al.	3/22/94	10/31/90	395/156
	5298674	Yun	3/29/94	12/3/91	84/616
	5303313	Mark et al.	4/12/94	12/16/91	382/56
	5305197	Axler, Mark W., et al.	4/19/94	10/30/92	364/401
	5307421	Darboux, Michel, et al.	4/26/94	10/14/92	382/008
	5317647	Pagallo	5/31/94	4/7/92	382/14
	5317677	Dolan, Charles P., et al.	5/31/94	4/16/92	395/077
	5329611	Pechanek et al.	7/12/94	6/21/93	395/27
	5343251	Nafeh, John	8/30/94	5/13/93	348/571
	5347600	Barnsley et al.	9/13/94	10/23/91	382/56
	5347632	Filepp, Robert, et al.	9/13/94	7/28/89	395/200
	5349670	Agrawal et al.	9/20/94	11/8/93	395/775
	5351078	Lemelson, Jerome H.	9/27/94	9/16/93	348/135
	5357276	Banker, Robert O., et al.	10/18/94	12/1/92	348/007
	5365282	Levine	11/15/94	1/19/93	348/734
✓	5373330	Levine	12/13/94	1/19/93	348/734



Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))

Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 14 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
pl	5381158	Takahara, Kenichi, et al.	1/10/95	4/5/94	345/156
	5384867	Barnsley et al.	1/24/95	10/23/91	382/56
	5388198	Layman et al.	2/7/95	4/16/92	395/155
	5390125	Sennott, et al.	2/14/95	2/18/93	364/449
	5390281	Luciw, William W., et al.	2/14/95	5/27/92	395/012
	5396546	Remillard	3/7/95	10/3/91	379/096
	5401946	Weinblatt, Lee S.	3/28/95	7/22/91	235/381
	5410343	Coddington, Carl D., et al.	4/25/95	4/2/93	348/007
	5410344	Graves, et al.	4/25/95	9/22/93	348/001
	5410643	Yomdin, Yossef, et al.	4/25/95	8/18/93	395/120
	5412773	Carlucci et al.	5/2/95	11/19/91	395/156
	5414756	Levine	5/9/95	1/21/94	379/67
	5420647	Levine	5/30/95	1/19/93	348/734
	5420975	Blades et al.	5/30/95	12/28/92	395/156
	5421008	Banning, Kenneth R., et al.	5/30/95	11/8/91	395/600
	5425100	Thomas et al.	6/13/95	7/22/94	380/20
	5425890	Yudin et al.	6/20/95	1/11/94	252/67
	5428727	Kurosu, Yasuo, et al.	6/27/95	2/16/93	395/147
	5430552	O'Callaghan	7/4/95	1/17/92	358/335
	5430812	Barnsley et al.	7/4/95	5/18/94	382/235
V	5434966	Nakazawa, Shin-ichi, et al.	7/18/95	6/1/92	395/161

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 15 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
pg	5436653	Ellis, Michael D., et al.	7/25/95	4/30/92	348/002
	5440400	Micheron et al.	8/8/95	10/17/94	358/335
	5444499	Saitoh	8/22/95	12/21/93	348/734
	5446891	Kaplan, et al.	8/29/95	11/2/94	395/600
	5446919	Wilkins	8/29/95	10/9/91	455/006.2
	5450490	Jensen et al.	9/12/95	3/31/94	380/006
	5455892	Minot, Joel, et al.	10/3/95	6/25/92	395/023
	5459517	Kunitake, Setsu, et al.	10/17/95	12/14/93	348/416
	5465204	Sekine et al.	11/7/95	11/5/92	364/152
	5465308	Hutcheson, Timothy L., et al.	11/7/95	8/25/93	382/159
	5465358	Blades, et al.	11/7/95	12/28/92	395/700
	5469206	Strubbe, et al.	11/21/95	6/1/93	348/007
	5477262	Banker, et al.	12/19/95	11/29/91	348/7
	5477447	Luciw, William W.	12/19/95	7/30/93	364/419.08
	5479264	Ueda, Tomohiro, et al.	12/26/95	1/29/93	358/335
	5481712	Silver, et al.	1/2/96	4/6/93	395/700
	5483278	Strubbe, et al.	1/9/96	9/28/93	348/007
	5485219	Woo, Thomas	1/16/96	4/18/94	348/460
	5485518	Hunter, Robert M., et al.	1/16/96	9/30/93	380/020
	5487132	Cheng, Viktor C.H.	1/23/96	11/30/94	395/063
Y	5488409	Yuen, Henry C., et al.	1/30/96	9/16/93	348/005

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 16 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
py	5495537	Bedrosian et al.	2/27/96	6/1/94	382/209
	5496177	Collia, Sherry S., et al.	3/5/96	3/15/94	434/118
	5500741	Baik, et al.	3/19/96	10/5/93	358/335
	5500920	Kupiec	3/19/96	9/30/94	395/002.84
	5502774	Bellegarda et al.	3/26/96	9/6/94	382/159
	5504518	Ellis, Michael D., et al.	4/2/96	6/7/95	348/002
	5506768	Seem et al.	4/9/96	8/16/94	364/161
	5508815	Levine	4/16/96	9/13/95	358/335
	5510838	Yomdin, Yosef, et al.	4/23/96	11/22/94	348/384
	5511153	Azarbayejani, et al.	4/23/96	1/18/94	395/119
	5515098	Carles, John B.	5/7/96	9/8/94	348/008
	5515972	Shames, Robert	5/14/96		
	5519452	Parulski, Kenneth A.	5/21/96	6/17/94	348/620
	5521841	Arman, Farshid, et al.	5/28/96		
	5521984	Denenberg et al.	5/28/96	6/10/93	382/209
	5523796	Marshall et al.	6/4/96	5/20/94	348/589
	5524065	Yagasaki, Toshiaki, et al.	6/4/96	7/25/94	382/226
	5526127	Yonetani	6/11/96	12/6/94	358/335
	5526479	Barstow et al.	6/11/96	7/29/92	395/152
	5534911	Levitan	7/9/96	11/2/94	348/1
	5535302	Tsao, Tien-Ren	7/9/96	12/1/94	395/021

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 17 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
dy	5535321	Massaro, et al.	7/9/96	2/14/91	395/153
	5537141	Harper et al.	7/16/96	4/15/94	348/12
	5537528	Takahashi, et al.	7/16/96	2/16/93	395/154
	5541638	Story, Guy A.	7/30/96	6/28/94	348/7
	5544254	Hartley et al.	8/6/96	3/8/95	382/108
	5544358	Capps et al.	8/6/96	5/26/95	395/600
	5546518	Blossom et al.	8/13/96	1/6/95	395/152
	5550928	Lu, Daozheng, et al.	8/27/96	12/15/92	382/116
	5550965	Gabbe, John D., et al.	8/27/96		
	5552833	Henmi, Hidemi, et al.	9/3/96	4/7/92	348/460
	5553277	Hirano, Toru, et al.	9/3/96	12/29/92	395/600
	5554983	Kitamura, et al.	9/10/96	4/23/93	340/937
	5555495	Bell, David A., et al.	9/10/96	10/25/93	364/148
	5557728	Garrett, Michael J., et al.	9/17/96	11/22/94	395/157
	5559548	Davis et al.	9/24/96	9/23/94	348/006
	5559549	Hendricks, et al.	9/24/96	12/2/93	348/6
	5559945	Beaudet et al.	9/24/96	4/25/94	395/156
	5560011	Uyama, Masashi	9/24/96	4/7/94	395/700
	5561649	Lee, Rae-hwan, et al.	10/1/96		
	5561718	Trew, Timothy I.P., et al.	10/1/96	10/24/94	382/118
V	5561796	Sakamoto, Kenji, et al.	10/1/96	3/14/95	395/600

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

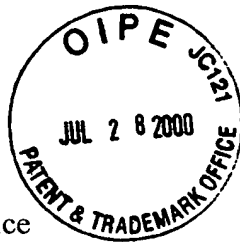
Page 18 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
<u>24</u>	5566274	Ishida, Tsutomu, et al.	10/15/96	12/17/91	395/061
	5568272	Levine	10/22/96	10/20/95	386/48
	5572246	Ellis et al.	11/5/96	6/7/95	348/002
	5574845	Benson, Daniel C.	11/12/96	11/29/94	395/118
	5576950	Tonomura, Yoshinobu, et al.	11/19/96	7/26/94	364/514.A
	5579471	Barber, et al.	11/26/96	3/23/94	395/326
	5581658	O'Hagan, Michael, et al.	12/3/96	12/14/93	395/022
	5581665	Sugiura, Masataka, et al.	12/3/96	10/26/93	395/086
	5581800	Fardeau, Michel, et al.	12/3/96	6/7/95	455/002
	5583560	Florin et al.	12/10/96	6/22/93	348/007
	5583966	Nakajima	12/10/96	3/14/94	395/051
	5584050	Lyons	12/10/96	10/7/94	455/067.1
	5585858	Harper et al.	12/17/96	8/12/94	348/485
	5585865	Amano et al.	12/17/96	2/28/95	348/731
	5586025	Tsuji, Hiroshi, et al.	12/17/96	10/5/92	395/761
	5586218	Allen, Bradley P.	12/17/96	8/24/95	395/010
	5586317	Smith	12/17/96	7/30/93	395/683
	5588074	Sugiyama	12/24/96	10/4/93	382/209
	5592560	Deaton, David W., et al.	1/7/97	9/8/94	382/100
	5594661	Bruner et al.	1/14/97	9/23/94	364/514.R
<u>25</u>	5594911	Cruz, Gil C., et al.	1/14/97	7/13/94	395/800

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 19 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
<i>PS</i>	5600573	Hendricks, et al.	2/4/97	12/2/94	364/514.R
	5600775	King, Philip S., et al.	2/4/97		
	5604542	Dedrick, Rick	2/18/97	2/8/95	348/552
	5606655	Arman, Farshid, et al.	2/25/97		
	5613032	Cruz, Gil C., et al.	3/18/97	9/2/94	386/69
	5614940	Cobbley, David A., et al.	3/25/97	10/21/94	348/007
	5617565	Augenbraun, et al.	4/1/97	11/29/94	395/604
	5619247	Russo	4/8/97	2/24/95	348/3
	5621454	Ellis, Michael D., et al.	4/15/97	6/7/95	348/2
	5621484	Cotty, Michel	4/15/97	5/29/96	348/734
	5621579	Yuen, Henry C.	4/15/97	6/7/95	386/121
	5621903	Luciw, William W., et al.	4/15/97	9/19/94	395/326
	5625715	Trew et al.	4/29/97	10/21/93	382/236
	5625783	Ezekiel, Alan W., et al.	4/29/97	12/13/94	395/352
	5627564	Yang	5/6/97	12/22/92	345/146
	5627915	Rosser, et al.	5/6/97	1/31/95	382/219
	5630159	Zancho, William	5/13/97	12/29/94	395/800
	5632007	Freeman	5/20/97	9/23/94	395/75
	5633484	Zancho, et al.	5/27/97	12/29/94	235/380
	5634849	Abecassis, Max	6/3/97	4/12/95	463/030
<i>V</i>	5635986	Kim, Jin-Hun	6/3/97	6/27/96	348/416

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 20 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
<u>PH</u>	5636346	Saxe	6/3/97	5/9/94	395/201
	5644686	Hekmatpour, Amir	7/1/97	4/29/94	395/50
	5644735	Luciw, William W., et al.	7/1/97	4/19/95	395/338
	5649061	Smyth	7/15/97	5/11/95	395/020
	5654771	Tekalp, A. Murat, et al.	8/5/97	5/23/95	348/699
	5655117	Goldberg, Evan, et al.	8/5/97		
	5657397	Bokser, Mindy R.	8/12/97	2/15/94	
	5659732	Kirsch, Steven T.	8/19/97	5/17/95	395/605
	5664046	Abecassis, Max	9/2/97	4/10/95	386/125
	5671411	Watts, et al.	9/23/97	6/7/95	395/615
	5682196	Freeman	10/28/97	6/22/95	348/13
	5682437	Okino, Toshiyuki, et al.	10/28/97	2/12/96	382/100
	5692214	Levine	11/25/97	8/8/94	395/833
	5696964	Cox, et al.	12/9/97	4/16/96	395/605
	5701369	Moon, et al.	12/23/97	8/31/95	382/249
	5710601	Marshall et al.	1/20/98	2/9/96	348/564
	5710833	Moghaddam, Baback, et al.	1/20/98	4/20/95	382/228
	5710884	Dedrick	1/20/98	3/29/95	395/200.47
	5717814	Abecassis, Max	2/10/98	9/16/94	386/46
	5717923	Dedrick, Rick	2/10/98	11/3/94	395/613
<u>V</u>	5724091	Freeman et al.	3/3/98	5/18/95	348/13

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 21 of 29**U.S. Patent Documents**

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
ph	5724424	Gifford	3/3/98	11/29/95	380/024
	5724472	Abecassis, Max	3/3/98	5/1/95	386/052
	5724521	Dedrick	3/3/98	11/3/94	395/226
	5724567	Rose, Daniel E., et al.	3/3/98	4/25/94	395/602
	5726688	Siefert, et al.	3/10/98	9/29/95	345/352
	5726898	Jacobs, Herbert H.	3/10/98	9/1/94	364/479.01
	5729741	Liaguno, Anthony, et al.	3/17/98	4/10/95	395/615
	5734786	Mankovitz, Roy J.	3/31/98	12/27/93	386/096
	5734853	Hendricks, et al.	3/31/98	12/2/93	345/352
	5734893	Li, et al.	3/31/98	9/28/95	395/615
	5745126	Jain, et al.	4/28/98	6/21/96	345/952
	5745640	Ishii, Toshiyuki	4/28/98	5/17/95	386/083
	5745710	Clanton et al.	4/28/98	1/11/96	395/327
	5748716	Levine	5/5/98	9/13/96	379/102.03
	5748780	Stolfo	5/5/98	6/14/94	382/232
	5748805	Withgott, et al.	5/5/98	7/11/94	382/306
	5751282	Girard, et al.	5/12/98	6/13/95	345/327
	5751286	Barber et al.	5/12/98	1/24/97	345/348
	5754938	Herz et al.	5/19/98	10/31/95	455/004.2
	5754939	Herz, Frederick S.M., et al.	5/19/98	10/31/95	455/004.2
V	5758257	Herz, et al.	5/26/98	11/29/94	455/002

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

Page 22 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
py	5758259	Lawler	5/26/98	3/11/97	455/5.1
	5761655	Hoffman, Michael T.	6/2/98	3/10/94	707/004
	5764809	Nomami et al.	6/9/98	9/26/96	382/284
	5767893	Chen, et al.	6/16/98	10/11/95	348/7
	5767913	Kassatly, Lord	6/16/98	5/25/95	348/403
	5767922	Zabih, Ramin, et al.	6/16/98	4/5/96	348/700
	5768421	Gaffin et al.	6/16/98	9/12/95	382/209
	5768426	Rhoads, Geoffrey B.	6/16/98	10/21/94	382/232
	5768437	Monro, et al.	6/16/98	8/26/94	382/249
	5774170	Hite, et al.	6/30/98	12/13/94	348/009
	5774664	Hidary, et al.	6/30/98	3/25/96	395/200.48
	5778181	Hidary et al.	7/7/98	3/14/96	395/200.48
	5784616	Horvitz	7/21/98	5/2/97	395/672
	5787201	Nelson, et al.	7/28/98	4/9/96	382/224
	5793888	Delanoy	8/11/98	1/29/97	382/219
	5794249	Orsolini et al.	8/11/98	12/21/95	707/104
	5795228	Trumbull, Douglas	8/18/98	7/3/96	463/042
	5797001	Augenbraun, et al.	8/18/98	9/26/96	395/609
	5797395	Martin	8/25/98	12/22/94	128/673
	5798785	Hendricks, et al.	8/25/98	12/2/93	348/001
V	5799109	Chung, et al.	8/25/98	6/7/95	382/243

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

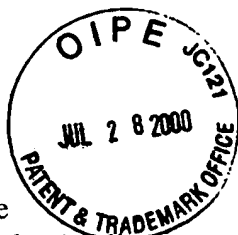
Page 23 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
R	5799292	Hekmatpour, Amir	8/25/98	9/25/95	706/011
	5801747	Bedard	9/1/98	11/15/96	348/1
	5801750	Kurihara, Akira	9/1/98	6/20/95	348/007
	5801753	Eyer et al.	9/1/98	8/11/95	348/013
	5802243	Yao, et al.	9/1/98	12/6/96	386/78
	5802361	Wang, et al.	9/1/98	9/30/94	395/600
	5805763	Lawler, et al.	9/8/98	5/5/95	386/083
	5814798	Zancho	9/29/98	5/23/97	235/380
	5818510	Cobbley, et al.	10/6/98	6/27/96	348/7
	5819284	Farber, et al.	10/6/98	3/24/95	707/104
	5819288	De Bonet	10/6/98	10/16/96	707/104
	5828402	Collings	10/27/98	12/5/96	348/005.5
	5828809	Chang, Yuh-Lin	10/27/98	10/1/96	386/069
	5832212	Cragun, et al.	11/3/98	4/19/96	395/188.01
	5835087	Herz, Frederick S.M., et al.	11/10/98	10/31/95	345/327
	5838314	Neel, et al.	11/17/98	2/21/96	345/327
	5839438	Graettinger, et al.	11/24/98	9/10/96	128/630
	5845288	Syeda-Mahmood	12/1/98	12/11/95	707/102
	5848158	Saito, et al.	12/8/98	6/3/96	380/21
	5848396	Gerace	12/8/98	4/26/96	705/010
V	5850218	LaJoie, et al.	12/15/98	2/19/97	345/327

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 24 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
py	5850352	Moezzi, et al.	12/15/98	11/6/95	364/514.A
1	5850470	Kung, et al.	12/15/98	8/30/95	382/157
	5852823	De Bonet	12/22/98	10/16/96	707/006
	5854856	Moura et al.	12/19/98	7/19/95	382/232
	5854923	Dockter, et al.	12/29/98	6/21/94	395/605
	5857036	Barnsley, et al.	1/5/99	3/4/96	382/248
	5857181	Augenbraun, et al.	1/5/99	7/25/97	707/2
	5861881	Freeman et al.	1/19/99	2/8/96	345/302
	5861906	Dunn, et al.	1/19/99	5/5/95	348/7
	5862260	Rhoads, Geoffrey B.	1/19/99	5/16/96	382/232
	5862262	Jacobs, et al.	1/19/99	3/30/92	382/249
	5862264	Ishikawa, et al.	1/19/99	3/14/97	382/249
	5867118	McCoy, et al.	2/2/99	6/7/95	342/90
	5867205	Harrison	2/2/99	7/7/97	348/001
	5867221	Pullen, et al.	2/2/99	3/29/96	348/417
	5867226	Wehmeyer, et al.	2/2/99	12/15/95	348/563
	5867579	Saito	2/2/99	1/10/97	380/25
	5867603	Barnsley, et al.	2/2/99	7/10/95	382/249
	5870151	Korber	2/9/99	4/8/96	348/553
	5870493	Vogl, et al.	2/9/99	3/17/97	382/195
✓	5870502	Bonneau, et al.	2/9/99	4/8/96	382/249

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

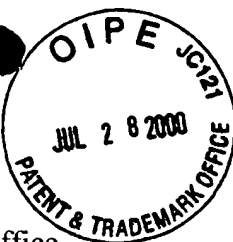
Page 25 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
py	5870724	Lawlor	2/9/99	6/6/95	705/042
	5870754	Dimitrova, et al.	2/9/99	4/25/96	707/104
	5873080	Coden, et al.	2/16/99	3/26/97	707/3
	5875265	Kasao	2/23/99	6/18/96	382/229
	5875446	Brown, et al.	2/23/99	2/24/97	707/3
	5877759	Bauer	3/2/99	3/26/97	345/339
	5878135	Blatter, et al.	3/2/99	11/27/96	380/10
	5880768	Lemmons et al.	3/9/99	4/6/95	348/1
	5881231	Takagi, et al.	3/9/99	3/7/96	395/200.42
	5884282	Robinson	3/16/99	4/9/98	705/27
	5886743	Oh, et al.	3/23/99	6/7/95	348/407
	5887243	Harvey, et al.	3/23/99	6/7/95	455/3.1
	5889506	Lopresti, et al.	3/30/99	10/25/96	345/158
	5889868	Moskowitz, et al.	3/30/99	7/2/96	380/51
	5889919	Inoue, et al.	3/30/99	6/4/97	386/94
	5890152	Rapaport, et al.	3/30/99	9/9/96	707/6
	5892536	Logan, et al.	4/6/99	10/3/96	348/13
	5893095	Jain, et al.	4/6/99	3/28/97	707/6
	5893110	Weber, et al.	4/6/99	8/16/96	707/104
	5896176	Das, et al.	4/20/99	10/25/96	348/416
U	5898434	Small, et al.	4/27/99	8/22/94	345/348

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 26 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
RY	5899975	Nielsen	5/4/99	4/3/97	704/260
	5899999	De Bonet	5/4/99	10/16/96	707/104
	5901244	Souma, et al.	5/4/99	12/12/96	382/190
	5901255	Yagasaki	5/4/99	2/7/92	382/310
	5903261	Walsh, et al.	5/11/99	6/20/96	345/302
	5903678	Ibenthal	5/11/99	10/29/97	382/249
	5903892	Hoffert, et al.	5/11/99	4/30/97	707/10
	5905800	Moskowitz, et al.	5/18/99	3/25/98	380/28
	5907446	Ishii, et al.	5/25/99	2/28/97	360/72.2
	5907836	Sumita, et al.	5/25/99	7/31/96	707/2
	5909183	Borgstahl, et al.	6/1/99	12/26/96	340/825.22
	5910987	Ginter, et al.	6/8/99	12/4/96	380/24
	5910999	Mukohzaka	6/8/99	11/20/96	382/124
	5911035	Tsao	6/8/99	4/12/95	395/21
	5912696	Buehl	6/15/99	12/23/96	348/5.5
	5912989	Watanabe	6/15/99	6/6/96	382/228
	5914712	Sartain, et al.	6/22/99	5/8/95	345/327
	5915034	Nakajima, et al.	6/22/99	4/26/96	382/124
	5915038	Abdel-Mottaleb, et al.	6/22/99	8/26/96	382/209
	5915068	Levine	6/22/99	10/18/96	386/83
V	5917912	Ginter, et al.	6/29/99	1/8/97	380/24

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 27 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
pg	5917958	Nunally, et al.	6/29/99	10/31/96	382/276
	5918014	Robinson	6/29/99	12/26/96	395/200.49
	5918223	Blum, et al.	6/29/99	7/21/97	707/1
	5920856	Syeda-Mahmood	7/6/99	6/9/97	707/3
	5920861	Hall, et al.	7/6/99	2/25/97	707/9
	5923376	Pullen et al.	7/13/99	10/22/98	348/417
	5923780	Morfill et al.	7/13/99	8/21/97	382/195
	5924053	Horowitz, et al.	7/13/99	4/24/97	702/90
	5933811	Angles, et al.	8/3/99	8/20/96	705/14
	5933823	Cullen, et al.	8/3/99	3/1/96	707/6
	5945988	Williams et al.	8/31/99	5/30/97	345/327
	5963645	Kigawa et al.	10/5/99	1/2/97	380/10
	5963670	Lipson et al.	10/5/99	2/12/96	382/224
	5966533	Moody	10/12/99	6/11/96	395/702
	5966696	Giraud	10/12/99	4/14/98	705/14
	5969765	Boon	10/19/99	1/28/98	348/409
	5970173	Lee et al.	10/19/99	6/4/96	382/236
	5970486	Yoshida et al.	10/19/99	11/28/97	707/4
	5973683	Cragun et al.	10/26/99	11/24/97	345/327
	5974398	Hanson et al.	10/26/99	4/11/97	705/14
✓	5974412	Hazlehurst et al.	10/26/99	9/24/97	707/3

**Form PTO-1449 (modified)**

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))

Attorney Docket No. 3459-11
Applicant: Hoffberg et al.
Ser. No. 09/260,802 Filed 3/2/99
Examiner:
G.A.U.: 2741

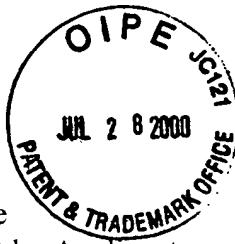
Page 28 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
	5977964	Williams et al.	11/2/99	1/5/98	345/327
	5978766	Luciw	11/2/99	12/20/95	705/1
	5983176	Hoffert, et al.	11/9/99	4/30/97	704/233
	5990927	Hendricks, et al.	11/23/99	12/2/93	348/6
	5991735	Gerace	11/23/99	8/11/98	705/10
	5991832	Sato, et al.	11/23/99	11/14/97	710/33
	5995094	Eggen, et al.	11/30/99	3/4/97	345/328
	5995673	Ibenthal, et al.	11/30/99	4/26/96	382/249
	5995978	Cullen, et al.	11/30/99	9/24/97	707/104
	5995997	Horvitz	11/30/99	5/2/97	709/102
	5999216	Kaars	12/7/99	11/18/97	348/385
	6005561	Hawkins, et al.	12/21/99	12/14/94	345/327
	6005597	Barrett, et al.	12/21/99	10/27/97	348/1
	6006218	Breese, et al.	12/21/99	2/28/97	707/3
	6009386	Cruickshank, et al.	12/28/99	11/28/97	704/207
	6009452	Horvitz	12/28/99	5/2/97	709/102
	6011895	Abecassis	1/4/00	5/1/98	386/69
	6012046	Lupien, et al.	1/4/00	10/16/97	705/37
	6012051	Sammon, Jr., et al.	1/4/00	2/6/97	706/52
	6012052	Altschuler, et al.	1/4/00	1/15/98	707/2
	6014184	Knee, et al.	1/11/00	12/30/96	348/731

Form PTO-1449 (modified)

U.S. Patent and Trademark Office
Information Disclosure Statement by Applicant
(37 C.F.R. 1.98(b))



Attorney Docket No. 3459-11

Applicant: Hoffberg et al.

Ser. No. 09/260,802 Filed 3/2/99

Examiner:

G.A.U.: 2741

Page 29 of 29

U.S. Patent Documents

Ex. Initial	Patent No.	Patentee	Issue Date	Filing Date	Class/subclass
24	6014634	Scroggie, et al.	1/11/00	8/4/97	705/14
	6014638	Burge, et al.	1/11/00	5/29/96	705/27
	6018372	Etheredge	1/25/00	9/4/97	348/569
	6018738	Breese, et al.	1/25/00	1/22/98	707/100
	6021403	Horvitz, et al.	2/1/00	7/19/96	706/45
	6025837	Matthews, et al.	2/15/00	3/29/96	345/327
	RE34340	Freeman	8/10/93	4/16/92	358/86
	RE35954	Levine	11/10/98	3/20/96	380/10
	H1506	Beretta	12/5/95	12/11/91	345/199
	WO 99/43111	Logan, et al.	8/26/99	2/23/98	H04H 1/00
	WO 99/39466	Kwoh, et al.	8/5/99	1/29/99	H04H 1/00
	WO 99/30493	Picco, et al.	6/17/99	12/9/98	H04N 7/10
	WO 99/14947	Boyer, et al.	3/25/99	8/19/98	H04N 5/445
	WO 98/47249	Tsuria, et al.	10/22/98	4/16/97	H04H 1/00
	WO 98/43380	Davis, et al.	10/1/98	3/21/97	H04L
✓	WO 97/06613	Fisk, et al.	2/20/97	8/9/95	H04H 1/02